ABSTRACTS OF WORKING PAPERS IN ECONOMICS

This section contains abstracts and complete bibliographic information for current working papers, listed alphabetically by primary author. Brief entries appear for secondary authors, cross-referenced to the primary author. The AWPE Database is available as part of EconLit, the American Economic Association's on-line database and CD-ROM. For more information please contact Cambridge University Press (Call 212/924-3900).

Acemoglu, Daron

PD September 1998. **TI** TFP Differences. **AU** Acemoglu, Daron; Zilibotti, Fabrizio. **AA** Acemoglu: Massachusetts Institute of Technology, National Bureau of Economic Research and Centre for Economic Policy Research. Zilibotti: Institute for International Economic Studies and Centre for Economic Policy Research. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/15; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 48. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** F43, J24, O14, O34, O47. **KW** Development. Technological Change. Intellectual Property. Skills. Total Factor Productivity.

AB The authors suggest a possible explanation for cross-country differences in total factor productivity. Many technologies used by LDCs are developed in OECD economies, and as such, are designed to make optimal use of the skills of these richer countries' workforces. Due to differences in the supply of skills, some of the tasks performed by skilled workers in richer economies will be carried out by unskilled workers in the LDCs. Since the technologies in these tasks are designed to be used by skilled workers, productivity in LDCs will be low. Even when all countries have equal access to new technologies, this mismatch between skills and technology can lead to sizable differences in total factor productivity. The authors' theory also suggests that the trade regime and the degree of intellectual property right enforcement in LDCs have an important effect on the type of technologies developed in richer economies and on productivity differences.

Acharya, Viral V.

PD July 1999. **TI** Callable Defaultable Bonds: Valuation, Hedging, and Optimal Exercise Boundaries. **AU** Acharya, Viral V.; Carpenter, Jennifer N. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/27; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 39. **PR** $5.00 each; $100.00 yearly subscription. **JE** G12, G13, G32. **KW** Defaultable Bonds. Exercise Boundaries. Hedge Ratios. Default Risk.

AB This paper models callable defaultable bonds, incorporating both stochastic interest rates and optimal call and default rules. We provide analytical results about valuation and optimal exercise boundaries, which we use to study hedge ratios with respect to Treasury bonds and issuer equity. Since the interest rate and equity risk of a bond depend on how close it is to call or default, the results on optimal exercise boundaries lead to new insights about durations, betas, and hedge ratios. For example, as functions of firm value, bond deltas with respect to the Treasury bond essentially inherit the shape of the exercise boundaries. It follows that a call provision can increase the duration of a defaultable bond and default risk can increase the duration of a callable bond. We also illustrate the difficulty of hedging default risk and quantify the Myers underinvestment problem for typical high grade and junk bond issuers.

Aglietta, Michel

PD December 1997. **TI** Why the Euro Will Be Strong: An Approach Based on Equilibrium Exchange Rates. **AU** Aglietta, Michel; Baulant, Camille; Coudert, Virginie. **AA** Aglietta: University de Nanterre and CEPII. Baulant: Universite d'Angers. Coudert: Banque de France. **SR** CEPII Working Paper: 97/18; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 35. **PR** Free. **JE** F31, F33. **KW** Foreign Exchange. Exchange Rates. Euro. European Union.

AB The real equilibrium exchange rate proposed in this paper is the long run parity which is consistent with the Balassa effect and the sustainability of the external position. Non-price competitiveness factors are also taken into account. Tests are made for three European currencies: mark, franc and lira against the dollar. Observed data of real exchange rates are shown to be cointegrated with the fundamentals of the model. The three European currencies are then aggregated according to their weight in the EMU, in order to construct a proxy of the euro. An equilibrium exchange rate of the euro against dollar is calculated and the contributions of the different fundamentals are analyzed.

Aizenman, Joshua

PD April 1998. **TI** Privatization in Emerging Markets. **AA** Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6524; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D72, F13, H21, L33. **KW** Privatization. Social Security. Median Voter. Efficient Taxation.

AB This paper evaluates the welfare implications of privatization in emerging market economies, in countries where policies are determined by the median voter. The authors show that privatization may lead to large efficiency gains by changing the menu of taxes. First, they consider privatization of import competing public enterprises. Reducing public sector involvement in import competing activities is shown to lower the public sector's benefits from protection, reducing thereby the equilibrium tariff rate. The second example deals with social security privatization in an economy characterized by imperfect capital mobility, where the private sector may engage in capital flight. A small share of capital owned by the middle class implies that the median voter would impose a tax on capital income that exceeds the efficient tax by a large margin, reflecting the "beggar my (capitalist) neighbor" attitude. Social security privatization increases the equity position of the middle class, inducing the median voter to internalize a higher fraction of the costs of high taxes on capital, thereby reducing the capital tax rate. These indirect benefits of privatization are not accounted for in a conventional cost benefit assessment of privatization. Ignoring these effects may lead to underestimating the potential gains of privatization.

Albano, Gian-Luigi

PD October 1999. **TI** A Comparison of Standard Multi-Unit Auctions with Synergies. **AU** Albano, Gian-Luigi; Germano, Fabrizio; Lovo, Stefano. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9952; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 5. **PR** $100 per year. **JE** C78, D44, D82. **KW** Multi-Unit Auctions. Synergies. Simultaneous Ascending. Vickrey- Clarke-Groves.

AB In an example with two objects and four bidders, some of which have super additive values, we characterize the equilibria of a simultaneous ascending auction and compare the revenue and efficiency generated with ones generated by the sequential, the one-shot simultaneous, and the Vickrey-Clarke-Groves auctions.

Aloi, Marta

PD February 1998. **TI** Endogenous Fluctuations in an Open Economy with Increasing Returns to Scale. **AU** Aloi, Marta; Dixon, Huw D.; Lloyd-Braga, Teresa. **AA** Aloi: University of Copenhagen. Dixon: University of York, England. Lloyd-Braga: Catholic University, Palma de Cima, Lisbon, Portugal. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/03; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 28. **PR** Free. **JE** D43, E32, F41. **KW** Endogenous Fluctuations. Increasing Returns. Open Economy.

AB In this paper we study the effects of opening an economy, with increasing returns in the production of non-traded goods, on the existence of multiple Pareto-ranked stationary equilibria, local indeterminacy and bifurcations. We consider a standard Overlapping Generations Model of a small open economy, with a fixed exchange rate, where labor is the only input and money the only asset. We find that when there are increasing returns, the open economy may display persistent equilibrium endogenous fluctuations (deterministic and stochastic) in the balance of trade and main macroeconomic aggregates.

Alvarez, Fernando

PD March 1998. **TI** Asset Pricing When Risk Sharing is Limited by Default. **AU** Alvarez, Fernando; Jermann, Urban J. **AA** Alvarez: University of Chicago. Jermann: University of Pennsylvania and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6476; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 64. **PR** $5.00. **JE** D51, D61, G12. **KW** Asset Pricing. Efficient Allocations. Solvency Constraints. Pricing Kernel.

AB We study the asset pricing implications of a multi-agent endowment economy where agents can default on contracts that would leave them otherwise worse off. We specialize and extend the environment studied by Kocherlakota (1995) and Kehoe and Levine (1993) to make it comparable to standard studies of asset pricing. We make contributions along two fronts. First, we extend the characterization of efficient allocations. Second, we present an equilibrium concept with complete markets and with endogenous solvency constraints. These solvency constraints are such as to prevent default--at the cost of reduced risk sharing. We show a version of the classical welfare theorems for this equilibrium definition. We characterize the pricing kernel, and compare it to the one for economies without participation constraints: interest rates are lower and risk premia can be bigger depending on the covariance of the idiosyncratic and aggregate shocks. We show that those agents whose endowment is very similar to the aggregate endowment are irrelevant for asset pricing. In a quantitative example, for reasonable parameter values, the relevant marginal rates of substitution fall within the Hansen-Jagannathan bounds.

PD June 1998. **TI** Quantitative Asset Pricing Implications of Endogenous Solvency Constraints. **AU** Alvarez, Fernando; Jermann, Urban J. **AA** Alvarez: University of Chicago, Universidad Torcuato Di Tella and National Bureau of Economic Research. Jermann: University of Pennsylvania, National Bureau of Economic Research and Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/05; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 29. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** G12. **KW** Asset Pricing. Solvency Constraints. Income Uncertainty.

AB We study the asset pricing implications of an economy where solvency constraints are determined to efficiently deter agents from defaulting. We present a simple example for which efficient allocations and all equilibrium elements are characterized analytically. The main model produces large equity premia and risk premia for long-term bonds with low risk aversion and a plausibly calibrated income process. We characterize the deviations from independence of aggregate and individual income uncertainty that produce equity and term premia.

Amir, Rabah

PD November 1999. **TI** On The Effects of Entry in Cournot Markets. **AU** Amir, Rabah; Lambson, Val E. **AA** Amir: University of Southern Danemark. Lambson: Brigham Young University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9959; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 26. **PR** $100 per year. **JE** C62, C72, D43, L13. **KW** Cournot Oligopoly.

Quasi-Competitiveness. Supermodular Games. Comparative Statics.

AB In the framework of symmetric Cournot oligopoly, this paper provides two minimal sets of assumptions on the demand and cost functions that imply respectively that, as the number of firms increases, the minimal and maximal equilibria lead to (i) decreasing industry price and increasing or decreasing per-firm output; and (ii) increasing industry price (and decreasing per-firm output). In both cases, per-firm profits are decreasing. The analysis relies crucially on lattice-theoretic methods and yields general, unambiguous and easily interpretable conclusions of a global nature. As a byproduct of independent interest, new insight into existence of Cournot equilibrium is developed.

Andersen, Torben G.

PD July 1999. **TI** The Distribution of Exchange Rate Volatility. **AU** Andersen, Torben G.; Bollerslev, Tim; Diebold, Francis X.; Labys, Paul. **AA** Andersen: Northwestern University. Bollerslev: Duke University and National Bureau of Economic Research. Diebold: New York University, University of Pennsylvania and National Bureau of Economic Research. Labys: University of Pennsylvania. **SR** New York University, Salomon Center Working Paper: S/99/25; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 23. **PR** $5.00 each; $100.00 yearly subscription. **JE** F31. **KW** Foreign Exchange. Exchange Rates. Volatility.

AB Using high-frequency data on Deutschemark and Yen returns against the dollar, we construct model-free estimates of daily exchange rate volatility and correlation, covering an entire decade. In addition to being model-free, our estimates are also approximately free of measurement error under general conditions, which we delineate. Hence, for all practical purposes, we can treat the exchange rate volatilities and correlations as observed rather than latent. We do so, and we characterize their joint distribution, both unconditionally and conditionally. Noteworthy results include a simple normality-inducing volatility transformation, high contemporaneous correlation across volatilities, high correlation between correlation and volatilities, pronounced and highly persistent temporal variation in both volatilities and correlation, clear evidence of long-memory dynamics in both volatilites and correlation, and remarkably precise scaling laws under temporal aggregation.

Andrews, Donald W. K.

PD May 1999. **TI** On the Number of Bootstrap Repetitions for BC sub a Confidence Intervals. **AU** Andrews, Donald W. K.; Buchinsky, Moshe. **AA** Andrews: Yale University. Buchinsky: Brown University. **SR** Brown University Department of Economics Working Paper: 99/17; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 22. **PR** no charge. **JE** C40, C52. **KW** Bootstrapping. Confidence Intervals.

AB This paper considers the problem of choosing the number of bootstrap repetitions B to use with the BC sub a bootstrap confidence intervals introduced by Efron (1987). Because the simulated random variables are ancillary, the authors seek a choice of B that yields a confidence interval that is close to the ideal bootstrap confidence interval for which B equals infinity. The authors specify a three-step method of choosing B that ensures that the lower and upper lengths of the confidence interval deviate from those of the ideal bootstrap confidence interval by at most a small percentage with high probability.

Ang, Andrew

PD April 1998. **TI** Regime Switches in Interest Rates. **AU** Ang, Andrew; Bekaert, Geert. **AA** Ang: Stanford University. Bekaert: Stanford University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6508; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** C32, C53, E32, E44, G12. **KW** Regime-Switching Models. Interest Rates. Univariate Models. Business Cycles.

AB Regime-switching models are well suited to capture the non- linearities in interest rates. This paper examines the econometric performance of regime-switching models for interest rate data from the U.S., Germany and the UK. There is strong evidence supporting the presence of regime switches but univariate models are unlikely to yield consistent estimates of the model parameters. Regime-switching models incorporating international short rate and term spread information forecast better, match sample moments better, and classify regimes better than univariate models. We show that the regimes in interest rates correspond reasonably well with business cycles, at least in the U.S. This may explain why regime-switching models forecast interest rates better than single regime models. Finally, the non-linear interest rate dynamics implied by regime-switching models have potentially important implications for the macroeconomic literature documenting the effects of monetary policy shocks on economic aggregates. Moreover, the implied volatility and drift functions are rich enough to resemble those recently estimated using non-parametric techniques.

Anis, Aslam H.

TI Hedonic Analysis of Arthritis Drugs. **AU** Cockburn, Iain M.; Anis, Aslam H.

Araki, Huzihiro

PD September 1998. **TI** Jensen's Operator Inequality for Functions of Several Variables. **AU** Araki, Huzihiro; Hansen, Frank. **AA** Araki: The Science University of Tokyo. Hansen. University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/13; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 11. **PR** Free. **JE** C60. **KW** Jensen's Inequality. Operator Convex Functions. Operator Inequality.

AB The operator convex functions of several variables are characterized in terms of a non-commutative generalization of Jensen's inequality, extending previous results of F. Hansen and G.K. Pedersen for functions of one variable and of F. Hansen for functions of two variables.

Armknecht, Paul A.

PD June 1999. **TI** Price Imputation and Other Techniques for Dealing with Missing Observations, Seasonality and Quality Change in Price Indices. **AU** Armknecht, Paul A.; Maitland-Smith, Fenella. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/78; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 27. **PR** not available.

JE C43, C63, C81, E31. **KW** Price Indices. Imputation Techniques. Seasonal Goods. Quality Adjustment.
AB Price index compilers frequently face situations where price observations are missing due to seasonal unavailability, supply shortages, or the discontinuation of products. Incorrect treatment of such situations can result in biased price indices. This paper presents statistical imputation techniques that index compilers can use to prevent bias and suggests the extension of these same techniques to assist with adjustments for quality differences. The use of additional procedures for dealing with some of the problems caused by seasonal commodities is also discussed.

Aswal, Navin

PD June 1999. **TI** Dictatorial Domains. **AU** Aswal, Navin; Chatterji, Shurojit; Sen, Arunava. **AA** Aswal: University of Minnesota. Chatterji and Sen: Indian Statistical Institute. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9940; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 31. **PR** $100 per year. **JE** D71, D72. **KW** Dictatorship. Linked Domain. Gibbard-Satterthwaite. Voting.
AB In this paper, we introduce the notion of a linked domain and prove that a non-manipulable social choice function defined on such a domain must be dictatorial. This result not only generalizes the Gibbard- Satterthwaite Theorem but also demonstrates that the equivalence between dictatorship and non-manipulability is far more robust than suggested by that theorem. We provide an application of this result in a particular model of voting. We also provide a necessary condition for a domain to be dictatorial and characterize dictatorial domains in the cases where the number of alternatives is three and four.

Athey, Susan

PD April 1998. **TI** Mentoring and Diversity. **AU** Athey, Susan; Avery, Christopher; Zemsky, Peter. **AA** Athey: Massachusetts Institute of Technology and National Bureau of Economic Research. Avery: Harvard University. Zemsky: INSEAD. **SR** National Bureau of Economic Research Working Paper: 6496; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 33. **PR** $5.00. **JE** D23, J41, J71, M12. **KW** Mentoring. Diversity. Promotion Decisions. Affirmative Action.
AB This paper studies the forces which determine how diversity at a firm evolves over time. We consider a dynamic model of a single firm with two levels of employees, the entry level and the upper level. In each period, the firm selects a subset of the entry-level workers for promotion to the upper level. The members of the entry-level worker pool vary in their initial ability as well as in their "type," where type could refer to gender or cultural background. Employees augment their initial ability by acquiring specific human capital in mentoring interactions with upper level employees. We assume that an entry-level worker receives more mentoring when a greater proportion of upper-level workers match the entry-level worker's type. In this model, it is optimal for the firm to consider type in addition to ability in making promotion decisions, so as to maximize the effectiveness of future mentoring. We derived conditions under which firms attain full diversity, as well as conditions under which there are multiple steady states, so that the level of diversity depends on the firm's initial conditions. With multiple steady states, temporary affirmative action policies can have a long-run impact on diversity levels.

PD June 1998. **TI** The Adoption and Impact of Advanced Emergency Response Services. **AU** Athey, Susan; Stern, Scott. **AA** Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6595; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 33. **PR** $5.00. **JE** I12, I18, L96, O33, R53. **KW** Emergency Response. Hospitals. Technological Change. Cardiac Patients.
AB This paper studies the causes and consequences of the adoption of technology by hospitals and public emergency response systems, focusing on Basic and Enhanced 911 services. The authors begin by exploring the distribution of 911 systems among counties in the U.S. showing that this locally provided service responds to income and political factors as well as population and density. Then, using a database of cardiac patients in Pennsylvania in 1995, the authors are able to characterize some of the productivity efforts of 911 services. They show that Enhanced 911 reduces response times, which in turn reduce mortality. Further, they find that the pre-hospital system interacts with the allocation of patients to hospitals in several ways. First, patient severity affects the allocation of patients to high-technology hospitals. Second, conditional on the availability of advanced cardiac care facilities, counties with 911 systems allocate cardiac patients to hospitals with better technology.

PD June 1998. **TI** An Empirical Framework for Testing Theories About Complementarity in Organizational Design. **AU** Athey, Susan; Stern, Scott. **AA** Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6600; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** C32, C52, D20, L23. **KW** Organizational Design. Complementarity. Bias. Identification.
AB This paper studies alternative empirical strategies for estimating the effects of organization design practices on performance, as well as the factors which determine organizational design, in a cross-section of firms. The economic model is based on a firm where multiple organizational design practices are endogenously determined, and these organizational design practices affect output through an "organizational design production function." The model is used to evaluate how different econometric strategies for testing theories about complementarity can be interpreted under alternative assumptions about the economic and statistical environment.

PD November 1998. **TI** Collusion and Price Rigidity. **AU** Athey, Susan; Bagwell, Kyle; Sanchirico, Chris. **AA** Athey: Massachusetts Institute of Technology and National Bureau of Economic Research. Bagwell and Sanchirico: Columbia University. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/23; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 63. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C73, D43, D82, L13, L14. **KW** Collusion. Repeated Games. Private Information. Price Rigidity. Auctions.

AB The authors consider an infinitely-repeated Bertrand game, in which prices are perfectly observed and each firm receives a privately- observed, i.i.d. cost shock in each period. The authors identify a tradeoff that is associated with collusive pricing schemes in which the price to be charged by each firm is strictly increasing in its cost level: such "fully-sorting" schemes offer efficiency benefits, as they ensure that the lowest-cost firm makes the current sale, but they also imply an informational cost (distorted pricing and/or equilibrium-path price wars), since a higher-cost firm must be deterred from mimicking a lower-cost firm by charging a lower price. A rigid-pricing scheme, where a firm's collusive price is independent of its current cost position, sacrifices efficiency benefits but also diminishes the informational cost. For a wide range of settings, the optimal symmetric collusive scheme requires: (i) the absence of equilibrium-path price wars, and (ii) a rigid price.

PD November 1998. **TI** The Value of Information In Monotone Decision Problems. **AU** Athey, Susan; Levin, Jonathan. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/24; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 39. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C44, C60, D81, D82. **KW** Bayesian Decision. Information Value. Stochastic Dominance. Decision Making. Uncertainty.

AB A seminal theorem due to Blackwell (1951) shows that every Bayesian decision-maker prefers an informative signal Y to another signal X if and only if Y is statistically sufficient for X. Sufficiency is an unduly strong requirement in most economic problems because it does not incorporate any structure the model might impose. This paper develops a general theory of information that allows characterization of the information preferences of decision-makers based on how their marginal returns to acting vary with the underlying (unknown) state of the world. The analysis imposes one central restriction: the authors consider "monotone decision problems". The authors show how this restriction can be exploited to characterize information preferences using stochastic dominance orders over the distributions of posterior beliefs generated by different signals. The authors identify conditions under which one decision-maker has a higher marginal value of information than another decision-maker, and thus will acquire more information.

PD June 1999. **TI** Information and Competition in U.S. Forest Service Timber Auctions. **AU** Athey, Susan; Levin, Jonathan. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/12; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 50. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** D44, D81, D82, L73. **KW** Competition. Timber. Auctions. Forest Products.

AB This paper studies the bidding behavior of firms in U.S. Forest Service timber auctions in 1976-1990. The Forest Service publicly announces its estimates of the tract characteristics before the auction, and each bidder additionally has an opportunity to inspect the tract and form its own estimates. The authors build a model that incorporates both differential information and the fact that bids placed in timber auctions are multidimensional. The theory predicts that bidders will strategically distort their bids based on their private information, a practice known as "skewed bidding." Using a dataset that includes the public ex ante Forest Service estimates and the ex post realizations of the tract characteristics, the authors test their model and provide evidence that bidders do possess private information. The results suggest that private information affects Forest Service revenue and creates allocations inefficiency. The authors establish that risk aversion plays an important role in bidding behavior.

Attanasio, Orazio P.

PD March 1998. **TI** Consumption Demand. **AA** University College London and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6466; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 52. **PR** $5.00. **JE** D84, D91, E13, E21. **KW** Consumption Function. Rational Expectations. Life-Cycle Model. Flexible Preferences.

AB Consumption is the largest component of GDP. Since the 1950's, the life cycle and the permanent income models have constituted the main analytical tools to the study of consumption behavior, both at the micro and at the aggregate levels. Since the late 1970's the literature has focused on versions of the model that incorporate the hypothesis of Rational Expectations and a rigorous treatment of uncertainty. In this paper, I survey the most recent contribution and assess where the life cycle model stands. My reading of the evidence and of recent developments leads me to stress two points: (i) the model can only be tested and estimated using a flexible specification of preferences and individual level data; (ii) it is possible to construct versions of the model that are not rejected by the data. One of the main problems of the approach used in the literature to estimate preferences is the lack of a "consumption function." A challenge for future research is to use preference parameter estimates to construct such functions.

PD May 1998. **TI** Intertemporal Choice and Cross-Sectional Variance of Marginal Utility. **AU** Attanasio, Orazio P.; Jappelli, Tullio. **AA** Attanasio: University College London and National Bureau of Economic Research. Jappelli: University of Salerno. **SR** National Bureau of Economic Research Working Paper: 6560; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 23. **PR** $5.00. **JE** C52, D11, D91, E21. **KW** Consumption. Intertemporal Choice.

AB The theory of intertemporal choice predicts that the cross-sectional variance of the marginal utility of consumption is equal to its own lag plus a constant and a random component. Using general preference specifications and some assumptions about the nature of the random component, we provide an explicit test of this hypothesis. Our approach circumvents the necessity to identify a pure age profile of the cross- sectional variance of consumption and yields a well-specified statistical test. This test is applied to data from the United States, the United Kingdom, and Italy. The results are remarkably consistent with the restrictions implied by the theory of intertemporal consumption choices.

PD May 1998. **TI** Asset Holding and Consumption Volatility. **AU** Attanasio, Orazio P.; Banks, James; Tanner, Sarah. **AA** Attanasio: Institute for Fiscal Studies and and National Bureau of Economic Research. Banks and Tanner: Institute for Fiscal Studies. **SR** National Bureau of Economic Research Working Paper: 6567; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 25. **PR** $5.00. **JE** D91, E21, G12. **KW** Consumption. Asset Pricing. CAPM. Shareholders.

AB Recent studies have explored the possibility that limited participation in asset markets, and the stock market in particular, might explain the lack of correspondence between the sample moments of the Intertemporal Marginal Rate of Substitution and asset returns. We estimate ownership probabilities to separate "likely" shareholders from non-shareholders, enabling us to control for changing composition effects as well as selection into the group. We then construct estimates of the IMRS for each of these different groups and consider their time series properties. We find that the consumption growth of shareholders is more volatile than that of non-shareholders, and more highly correlated with excess returns to shares. In particular, one cannot reject the predictions of the Consumption CAPM for the group of households predicted to own both assets. This is in contrast to the failure of the model when estimated on data for all households.

PD June 1998. **TI** The Demand for Money, Financial Innovation, and the Welfare Cost of Inflation: An Analysis with Households' Data. **AU** Attanasio, Orazio P.; Jappelli, Tullio; Guiso, Luigi. **AA** Attanasio: University College London. Jappelli: University of Salerno. Guiso: Ente Luigi Einaudi, Per gli studi Monetari e Finanziari. **SR** National Bureau of Economic Research Working Paper: 6593; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E31, E41, G21. **KW** Money Demand. Inflation. Transaction Technologies. Selectivity Bias. Welfare.

AB This paper estimates the parameters of the demand for money derived from the generalized Baumol-Tobin model. A unique microeconomic data set on households contains information on average cash holdings, on deposits and other interest bearing accounts, on the number of trips to the bank, on the size of withdrawals and on the ownership and use of ATM cards. The authors model the adoption of new transaction technologies and use these estimates to correct for the selectivity bias induced by some households choosing to hold no interest bearing assets and some to use an ATM card. The interest rate and expenditure flow elasticities of the demand for cash are close to the theoretical values implied by standard inventory models. However, the authors find significant differences between individuals with and without an ATM card. The welfare cost of inflation is found to vary considerably within the population, but is never very large.

Avery, Christopher

TI Mentoring and Diversity. **AU** Athey, Susan; Avery, Christopher; Zemsky, Peter.

Aw, Bee Yan

PD May 1998. **TI** Productivity and the Decision to Export: Micro Evidence from Taiwan and South Korea. **AU** Aw, Bee Yan; Chung, Sukkyun; Roberts, Mark J. **AA** Aw: Pennsylvania State University. Chung: Kwachon-Shi, Korea. Roberts: Pennsylvania State University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6558; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 25. **PR** $5.00. **JE** D21, D24, F14, O12. **KW** Productivity. Export Decision. Self-Selection. Learning-by-Exporting.

AB While evidence indicates that exporting producers have higher productivity than nonexporters, the mechanisms generating this pattern are less clear. Exporters may acquire knowledge of new production methods, inputs, and product designs from their international contacts, resulting in higher productivity. Alternatively, the higher productivity may simply reflect the self-selection of more efficient producers into a highly competitive export market. This paper uses micro data from manufacturing censuses in South Korea and Taiwan to study the linkages between a producer's total factor productivity and choice to export. In Taiwan, transitions of firms in and out of the export market reflect systematic variations in productivity as predicted by self-selection models. Firms with higher productivity, ex ante, tend to enter the export market and exporters with low productivity tend to exit. Moreover, entry into the export market is often followed by relative productivity improvements, consistent with learning-by-exporting forces. In South Korea, the evidence both for self-selection and for learning- by-exporting is much weaker. Comparison of the two countries suggests that in Korea factors other than production efficiency play a more prominent role as determinants of the export decision.

Aydemir, Abdurrahman Bekir

PD November 1998. **TI** Forecast Performance of Threshold Autoregressive Models -- A Monte Carlo Study. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9910; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 60. **PR** $10.00 Canadian per paper. **JE** C22, C32, C53. **KW** Nonlinear Time Series. Threshold Models. Forecast Performance. Monte Carlo. Forecasting.

AB Threshold Autoregressive Models (TAR) along with other nonlinear time series models have attracted much attention in recent years in time series analysis. It has been reported that TAR models have a good in sample fit but like many other non-linear time series models cannot improve out of sample forecast performance. Within a controlled simulation framework, the authors study the forecast performance under two types of non-linearity: shift in the mean and shift in the volatility of the process. The authors illustrate that estimation of the lag parameter and threshold value are crucial for forecast performance. Monte Carlo results show that TAR model performs much better than a Random Walk (RW) model; however, it provides no significant improvement over a linear Autoregressive (AR) model. Conclusions on the relative forecast performance of TAR models based on a single data set can be quite different than long run (Monte Carlo) results.

Aziz, Jahangir

PD June 1999. **TI** Cyclical Effects of the Composition of Government Purchases. **AU** Aziz, Jahangir; Leruth, Luc. **AA** Aziz: International Monetary Fund. Leruth: Universite de Liege and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9932; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 34. **PR** $100 per year. **JE** D58, E32, E62, H50. **KW** Government Expenditures. Government Investment. Cyclical Variability. Productivity.

AB This paper constructs a general equilibrium model with monopolistically competitive firms and endogenous markups where government spending consists of both consumption and investment goods. It is shown that when markups are counter-cyclical, an increase in the share of investment goods in total public expenditure, raises output, employment, and capital stock in the long-run leading to increases in welfare and productivity. However, this also raises the short run cyclical variability of the economy. In particular, variance of output and employment arising from technological and aggregate demand shocks increase as the long run share of government investment goes up implying a trade-off between greater long-run efficiency and higher short-run volatility. We apply our methodology to the postwar US economy and other OECD countries.

Bacchetta, Philippe

PD April 1998. **TI** Capital Flows to Emerging Markets: Liberalization, Overshooting and Volatility. **AU** Bacchetta, Philippe; Van Wincoop, Eric. **AA** Bacchetta: Studienzentrum Gerzensee. Van Wincoop: Federal Reserve Bank of New York. **SR** National Bureau of Economic Research Working Paper: 6530; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 26. **PR** $5.00. **JE** D83, F21, F32, G15. **KW** Capital Flows. Financial Liberalization. Adjustment. Overshooting.

AB The paper analyzes the impact of financial liberalization and reforms in emerging markets on the dynamics of capital flows to these markets, using a simple model of international investors' behavior. We first show that the gradual nature of liberalizations, combined with the cost of absorbing large inflows in emerging economies, leads to rich dynamics of capital flows and often implies an initial period of overshooting as portfolios adjust. Asset prices will overshoot as well. Second, we show that if investors have incomplete information about new emerging markets, and learn over time, there can be high volatility of capital flows as well as contagion. Finally, we provide numerical estimates of long run capital inflows to emerging market economies and compare them to actual inflows. This gives a good indicator of upcoming crisis situations.

Bach, Christian F.

TI Danish Aid Policy: Theory and Empirical Evidence. **AU** Tarp, Finn; Bach, Christian F.; Baunsgaard, Soren; Hansen, Henrik.

Bagwell, Kyle

PD June 1998. **TI** The Simple Economics of Labor Standards and the GATT. **AU** Bagwell, Kyle; Staiger, Robert W. **AA** Bagwell: Columbia University and National Bureau of Economic Research. Staiger: University of Wisconsin and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6604; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 31. **PR** $5.00. **JE** F13, F15, F23, F42. **KW** Trade Agreements. Tariffs. Labor Standards. GATT. National Sovereignty.

AB This paper considers several approaches to the treatment of domestic labor standards within a trade agreement. The authors show that, while the benign neglect of labor standards within a trade agreement will result in inefficient choices for both trade barriers and labor standards, direct negotiations over labor standards are not required for efficiency. The authors describe two tariff negotiation structures that deliver efficient outcomes while preserving varying degrees of national sovereignty over policy choices. A first approach combines tariff negotiations with subsequent Kemp-Wan adjustments, under which each government is free to alter unilaterally its policy mix so long as trade volumes are not affected. A second approach adds to the first approach GATT's rule of reciprocity, under which subsequent to tariff negotiations each government is free to alter unilaterally its tariff, but its trading partner is then free to reciprocate with a tariff response that stabilizes export prices.

TI Collusion and Price Rigidity. **AU** Athey, Susan; Bagwell, Kyle; Sanchirico, Chris.

Baldwin, Richard E.

PD March 1998. **TI** Agglomeration and Endogenous Capital. **AA** Graduate Institute of International Studies and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6459; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 17. **PR** $5.00. **JE** F13, F20, F43, L22. **KW** Footloose Labor. Vertically-Linked Industries. Agglomeration. Catastrophic Agglomeration.

AB The "new" economic geography focuses on the footloose-labor and the vertically-linked-industries models. Both are complex since they feature demand-linked and cost-linked agglomeration forces. I present a simpler model where agglomeration stems from demand-linked forces arising from endogenous capital with forward-looking agents. The model's simplicity permits many analytic results (rare in economic geography). Trade-cost levels that trigger catastrophic agglomeration are identified analytically, liberalization between almost equal-sized nations is shown to entail "near-catastrophic" agglomeration, and Krugman's informal stability test is shown to be equivalent to formal tests in a fully specified dynamic model.

PD March 1998. **TI** Incremental Trade Policy and Endogenous Growth: A q-Theory Approach. **AU** Baldwin, Richard E.; Forslid, Rikard. **AA** Baldwin: University of Geneva and National Bureau of Economic Research. Forslid: Lund University. **SR** National Bureau of Economic Research Working Paper: 6477; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 26. **PR** $5.00. **JE** F12, F13, F43. **KW** Incremental Liberalization. Initial Barriers. Growth. Trade Policy.

AB Most trade-and-growth studies focus on the growth effects of autarky- to-free-trade changes, rather than those of incremental liberalizations. This paper characterizes how the strength and sign of openness-and- growth links depend upon the nature and level of trade barriers. For most types of trade barriers, we find that liberalization raises or lowers growth depending upon the initial level of the barrier. This suggests empirical studies that pool data from high and low protection nations are mis-specified, and that policy lessons based on autarky-to- free-trade results are of limited use to policymakers.

PD March 1998. **TI** Multiproduct Multinationals and Reciprocal FDI Dumping. **AU** Baldwin, Richard E.; Ottaviano, Gianmarco I. P. **AA** Baldwin: University of Geneva and National Bureau of Economic Research. Ottaviano: University of Bologna. **SR** National Bureau of Economic Research Working Paper: 6483; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E22, F12, F21, F23. **KW** Intra-Industry FDI. Multinational Corporations. Foreign Investment. Trade Patterns.

AB The global pattern of foreign direct investment (FDI) is quite similar to the world trade pattern. In particular, intra-industry FDI between rich nations is almost as pervasive as intra-industry trade among rich nations. In the "standard" MNC (multinational corporation) model--of Markusen, Venables, Brainard, and others--FDI is driven by a tradeoff between proximity and scale, so firms typically supply the foreign market via exports or via FDI. The close correlation of two-way trade and investment flows is therefore difficult to explain with the standard model. The authors propose a model of multiproduct MNCs where firms simultaneously engage in intra-industry FDI and intra-industry trade.

Ball, Laurence

PD June 1998. **TI** Another Look at Long-Run Money Demand. **AA** John Hopkins University. **SR** National Bureau of Economic Research Working Paper: 6597; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E41. **KW** Money Demand.

AB This paper investigates the long-run demand for M1 in the postwar United States. Previous studies, based on data ending in the late 1980's, are inconclusive about the parameters of postwar money demand. This paper obtains precise estimates of these parameters by extending the data through 1996. The income elasticity is approximately -0.05. These parameters are significantly smaller in absolute value than the corresponding parameters for the prewar period.

Banerjee, Abhijit

PD October 1998. **TI** Empowerment and Efficiency: The Economics of Agrarian Reform. **AU** Banerjee, Abhijit; Gertler, Paul J.; Ghatak, Maitreesh. **AA** Banerjee: Massachusetts Institute of Technology. Gertler: University of California, Berkeley. Ghatak: University of Chicago and London School of Economics. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/22; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 51. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** D23, D82, O12, O13, Q15. **KW** Tenancy Reform. Sharecropping. Contracts. Property Rights. Agriculture.

AB We analyze the effect of agricultural tenancy laws that offer security of tenure to tenants and regulate the share of output they should pay the landlord as rent on farm productivity. Theoretically, the net impact of tenancy reform is shown to be a combination of two effects. A bargaining power effect tends to improve the crop-share of tenants and hence improves their incentives in general. A security of tenure effect tends to encourage investment by the tenant on one hand, but on the other hand eliminates the possibility of using eviction threats as an incentive device by the landlord. Analysis of evidence on how contracts and productivity changed after a tenancy reform program was implemented in the Indian state of West Bengal in the late seventies suggests that tenancy reform played an important role in increasing agricultural productivity.

Banerjee, Saugata

PD September 1999. **TI** The Dynamics of Capital Structure. **AU** Banerjee, Saugata; Heshmati, Almas; Wihlborg, Clas. **AA** Banerjee: Koc University. Heshmati: Stockholm School of Economics. Wihlborg: Goteborg University and New York University. **SR** New York University, Salomon Center Working Paper: S/99/29; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 16. **PR** $5.00 each; $100.00 yearly subscription. **JE** C23, C51, D92, G32. **KW** Capital Structure. Dynamic Adjustment. Optimal Leverage. Firms. Panel Data.

AB The common approach in empirical capital structure research has been to study the determinants of optimal leverage by studying the association between observed leverage and a set of explanatory variables. This approach has two major shortcomings. First, the explanatory variables explain the variation in the observed leverage, which need not necessarily be the optimal leverage. Second, the empirical analyses are unable to explain the nature of dynamic capital structure adjustment by firms. This paper uses a dynamic adjustment model and panel data methodology on a sample of UK and US firms to specifically establish the determinants of a time-varying optimal capital structure. In addition, the model allows for the possibility that at any point in time firms' observed leverage may not be optimal, and that firms differ in their speed of adjustment towards the optimal capital structure. The authors also attempt to identify factors determining the speed of adjustment.

Banks, James

TI Asset Holding and Consumption Volatility. **AU** Attanasio, Orazio P.; Banks, James; Tanner, Sarah.

Bardhan, Pranab

PD April 1998. **TI** Wealth Inequality, Wealth Constraints and Economic Performance. **AU** Bardhan, Pranab; Bowles, Samuel; Gintis, Herbert. **AA** Bardhan: University of California, Berkeley. Bowles and Gintis: University of Massachusetts, Amherst. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/097; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 62. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** D31, D60, D74, H41, J50. **KW** Inequality. Agency Problems. Cooperation. Team Production. Risk Aversion.

AB When asymmetry or non-verifiability of information, or non- excludability of users, makes contracts incomplete or unenforceable, and where for these and other reasons there are impediments to efficient bargaining, we show that private contracting will not generally assign the control of assets and the residual claimancy over income streams of projects to achieve socially efficient outcomes, suggesting that the policy relevance of the widely accepted "efficiency-equity tradeoff" should be seriously reconsidered. We illustrate these ideas with reference to misallocations in land, labor and credit markets. We also explore the consequences of redistributive policies for risk-taking and risk exposure when non-wealthy agents are risk-averse and for resolving collective action problems inherent in the provision of local public goods in the context of commons.

PD December 1998. **TI** Expenditure Decentralization and the Delivery of Public Services in Developing Countries. **AU** Bardhan, Pranab; Mookherjee, Dilip. **AA** Bardhan: University of California, Berkeley. Mookherjee: Boston University. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/104; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 55. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** D72, D73, H41, H42, H77. **KW** Capture. Centralized Bureaucracy. Corruption. Welfare Programs. Local Governments.

AB This paper provides a theoretical framework for appraising trade-offs between alternative methods of delegating authority over the delivery of public services, on the targeting and cost-effectiveness of public spending programs in developing countries. In a top-down centralized system, this authority is delegated to bureaucrats by a central government that has limited ability to monitor their performance with respect to either service delivery or cost control. In a decentralized system, authority is allocated to elected local governments or client groups, which may be subject to capture by local elites. Both systems are thus prone to local corruption and lack of accountability. Part 1 of the paper studies the relevant tradeoffs in the context of a poverty alleviation program, whose aim is to deliver a private merit good available on competitive markets to the poor. Part 2 considers an infrastructure service provided by a public enterprise that has a natural monopoly.

PD September 1999. **TI** Inequality, Market Imperfections, and Collective Action Problems. **AU** Bardhan, Pranab; Ghatak, Maitreesh. **AA** Bardhan: University of California, Berkeley. Ghatak: University of Chicago. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C99/108; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 19. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** D63, D71, H41, O12, O13. **KW** Public Goods. Common Property Resources. Inequality. Wealth. Social Choice.

AB In this paper we analyze the effects of wealth inequality on the provision of public goods and management of common-property resources (CPR) when there are market imperfections in inputs that are complementary in production to the collective good. We show that for public goods inequality impedes efficiency, while for use of CPR's there is an inverse U-shaped relationship between inequality and efficiency. We discuss the implications of these theoretical results for redistributive policies such as land reform.

Barrett, John R.

TI Economic and Legal Considerations of Optimal Privatization: Case Studies of Mortgage Firms (DePFa Group and Fannie Mae). **AU** Beyer, Hans-Joachim; Dziobek, Claudia; Barrett, John R.

Barthelemy, Vincent

PD April 1999. **TI** The Role of Education Supply in Economic Growth and the Dynamics of Skills. **AU** Barthelemy, Vincent; Michel, Philippe. **AA** Barthelemy: GREQAM, Universite de la Mediterranee. Michel: IUF, GREQAM, Universite de la Mediterranee and Louvain-la-Nueve. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9923; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 24. **PR** $100 per year. **JE** I21, I28, O11, O40. **KW** Human Capital. Growth. Skill Distribution. Investment.

AB This paper analyzes the role of the structure of skills in economic development through investment in human capital. With a lack of credit market for education and the presence of indivisibilities in investment in human capital as well as congestion in the educational system, the initial distribution of skills affects aggregate output and investment both in the short and long run, as there are multiple balanced growth paths. This paper provides an additional explanation for the persistent differences in per-capita output across countries. Moreover, it shows that cross-country differences in macroeconomic adjustment to educational policies can be attributed, among other factors, to differences in the distribution of skills.

Bartolini, Leonard

PD May 1999. **TI** Excess Volatility and the Asset-Pricing Exchange Rate Model with Unobservable Fundaments. **AU** Bartolini, Leonard; Giorgianni, Lorenzo. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/71; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 17. **PR** not available. **JE** C22, F31, G12. **KW** Exchange Rates. Volatility. Asset Pricing. Survey. Expectations.

AB This paper presents a method to test the volatility predictions of the textbook asset-pricing exchange rate model, which imposes minimal structure on the data and does not commit to a choice of exchange rate "fundamentals." Our method builds on existing tests of excess volatility in asset prices, combining them with a procedure that extracts unobservable fundamentals from survey-based exchange rate expectations. We apply our method to data for the three major exchange rates since 1984 and find broad evidence of excess exchange rate volatility with respect to the predictions of the canonical asset-pricing model in an efficient market.

Bates, David

PD April 1998. **TI** Valuing the Futures Market Clearinghouse's Default Exposure During the 1987 Crash. **AU** Bates, David; Craine, Rogers. **AA** Bates: University of Iowa and National Bureau of Economic Research. Craine:

University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 6505; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D84, G13, G14, G23. **KW** Futures Market. Default Exposure. Expected Loss. Crashes.

AB This paper estimates measures of default exposure on S&P500 futures contracts traded on the Chicago Mercantile Exchange. The authors estimate the traditional risk exposure statistic: the tail probabilities that the change in the futures price exceeds the margin. Two economic measures of risk are also calculated -- expected value of the payoffs in the tails, and expected value of those payoffs conditional on landing in the tail. While the tail probabilities capture only the likelihood of a crash, the economic measures demonstrate the expected loss from such low-probability large-payoff events. The risk measures follow from estimates of the conditional distribution of futures price changes. The authors infer a jump-diffusion process and a log-normal process from the prices of traded options, and estimate a jump-diffusion process from time-series data on future prices. After the crash, the forward-looking jump-diffusion model indicates another jump is unlikely, but would be big and negative. The tail probabilities are less than 2 percent, but the expected value of payoffs in the tails conditional on landing in the tail equals 55 percent of the S&P500 futures price. According to this estimate roughly $10.5 billion in liquid reserves would be required to weather another crash.

Batini, Nicoletta

TI Forward-Looking Rules for Monetary Policy. **AU** Haldane, Andrew G.; Batini, Nicoletta.

Baulant, Camille

TI Why the Euro Will Be Strong: An Approach Based on Equilibrium Exchange Rates. **AU** Aglietta, Michel; Baulant, Camille; Coudert, Virginie.

Baunsgaard, Soren

TI Danish Aid Policy: Theory and Empirical Evidence. **AU** Tarp, Finn; Bach, Christian F.; Baunsgaard, Soren; Hansen, Henrik.

Bauwens, Luc

PD October 1999. **TI** Adaptive Polar Sampling with an Application to a Bayes Measure of Value-at-Risk. **AU** Bauwens, Luc; Bos, Charles S.; Van Dijk, Herman K. **AA** Bauwens: Universite Catholique de Louvain. Bos and Van Dijk: Erasmus University Rotterdam. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9957; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 25. **PR** $100 per year. **JE** C11, C15, C63, G12. **KW** Markov Chain. Polar Coordinates. Ill-Behaved Posterior. Value-at- Risk.

AB Adaptive Polar Sampling (APS) is proposed as a Markov chain Monte Carlo method for Bayesian analysis of models with ill-behaved posterior distributions. In order to sample efficiently from such a distribution, location-scale transformation and a transformation to polar coordinates are used. After the transformation to polar coordinates, a Metropolis- Hastings algorithm is applied to sample directions and, conditionally on these, distances are generated by inverting the cumulative distribution function (CDF). A sequential procedure is applied to update the location and scale. Tested on a set of canonical models that feature near non-identifiability, strong correlation, and bimodality, APS compares favorably with the standard Metropolis-Hastings sampler in terms of parsimony and robustness. APS is applied within a Bayesian analysis of a GARCH-model which is used for the evaluation of the Value-at-Risk of the return of the Dow Jones stock index.

PD November 1999. **TI** The Stochastic Conditional Duration Model: A Latent Factor Model for the Analysis of Financial Durations. **AU** Bauwens, Luc; Veredas, David. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9958; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 27. **PR** $100 per year. **JE** C13, C41, G12. **KW** Duration. High Frequency Data. Market Microstructure. Factor Model.

AB A new model for the analysis of durations, the stochastic conditional duration (SCD) model, is introduced. This model is based on the assumption that the durations are generated by a latent stochastic factor that follows a first order autoregressive process. The latent factor is perturbed multiplicatively by an innovation distributed as a Weibull or gamma variable. The model can capture a wide range of shapes of hazard functions. The estimation of the parameters is performed by quasi-maximum likelihood, after transforming the original nonlinear model into a space state representation and using the Kalman filter. The model is applied to stock market price-durations, looking at the relation between price durations, volume, spread and trading intensity.

Bayoumi, Tamim

PD May 1999. **TI** Estimating Trade Equations from Aggregate Bilateral Data. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/74; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 27. **PR** not available. **JE** F11, F12, F17. **KW** Trade Elasticities. Panel Data. Exports. Exchange Rates. Supply.

AB This paper uses bilateral data on 420 merchandise trade flows between 21 industrial countries to estimate standard trade equations. The data set of over 11,000 observations allows the underlying elasticities to be estimated with considerable precision. Remarkably, a single specification appears to explain behavior across these countries in spite of the large number of individual flows analyzed. The results indicate a powerful long-run effect from supply on exports. Also, the real exchange rate elasticity depends upon the behavior of third country exchange rates. There is evidence of pricing to market and of a J-curve.

Bebchuk, Lucian Arye

PD March 1998. **TI** The Uneasy Case for the Priority of Secured Claims in Bankruptcy: Further Thoughts and a Reply to Critics. **AU** Bebchuk, Lucian Arye; Fried, Jesse. **AA** Bebchuk: Harvard Law School and National Bureau of Economic Research. Fried: University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 6472; National Bureau of Economic Research, 1050

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 65. **PR** $5.00. **JE** G33, K22. **KW** Bankruptcy. Secured Claims. Full Priority. Partial Priority.

AB In an earlier article, "The Uneasy Case for the Priority of Secured Claims in Bankruptcy," 105 Yale Law Journal 857 (1996), we suggested that the case for a full priority of secured claims in bankruptcy is an uneasy one. In this paper, we address various reactions and objections to our analysis that have been offered by subsequent work. We also further develop some of the main elements of the analysis in our earlier article - with respect to both our analysis of the comparative merits of full and partial priority and our analysis of how a partial priority regime could be implemented. The analysis confirms our earlier conclusion that the case for a full priority of secured claims in bankruptcy is an uneasy one.

PD March 1998. **TI** Chapter 11. **AA** Harvard Law School and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6473; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 15. **PR** $5.00. **JE** D44, G32, G34. **KW** Corporate Reorganization. Chapter 11. Auctions Approach. Options Approach.

AB This essay surveys the literature on Chapter 11. I start by discussing the objectives by which the performance of corporate reorganization rules is to be judged and then consider the fundamental problem of valuation that arises in corporate reorganization. I next turn to examine the performance of the prevailing bargaining-based approach to reorganization, both in terms of its effect on total reorganization value and in terms of its effect on the division of this value. Finally, I examine the two alternative approaches that have been put forward to the approach of existing rules -- that of auctioning the reorganized company's asset (put forward by Baird (1986) and Jensen (1991)) and that of using options to reorganize the company's ownership (put forward by Bebchuk (1988)).

PD April 1998. **TI** The Effect of Offer-of-Settlement Rules on the Terms of Settlement. **AU** Bebchuk, Lucian Arye; Chang, Howard F. **AA** Bebchuk: Harvard Law School and National Bureau of Economic Research. Chang: University of Southern California Law Center. **SR** National Bureau of Economic Research Working Paper: 6509; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** C72, C78, K40, K41. **KW** Settlement Terms. Offer-of-Settlement Rules. Litigation Costs.

AB Under an "offer of settlement" rule, a party to a lawsuit may make a special offer to settle with the other party, such that if the other party rejects this offer, then this offer (unlike an ordinary offer) becomes part of the record in the case and may affect the allocation of litigation costs. Specifically, if the parties litigate to judgment, then the allocation of litigation costs may depend on how the judgment compares with the special offer. This paper develops a model of bargaining under offer-of-settlement rules that can be used to analyze the effect that such rules have on the terms of settlement. The analysis first sets forth a general principle that identifies the settlement amount under any such rule. We then apply this principle to derive the settlement terms under the most important of these rules, and we identify a large set of seemingly different rules that produce identical settlements. Our results have both positive and normative implications.

PD April 1998. **TI** An Economic Analysis of Transnational Bankruptcies. **AU** Bebchuk, Lucian Arye; Guzman, Andrew T. **AA** Bebchuk: Harvard Law School and National Bureau of Economic Research. Guzman: University of Chicago. **SR** National Bureau of Economic Research Working Paper: 6521; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** F23, G15, G31, G33. **KW** Bankruptcy Laws. Territoriality. Universality. Investment Patterns.

AB This paper analyzes the effects of the legal rules governing transnational bankruptcies. We compare a regime of "territoriality" -- in which assets are adjudicated by the jurisdiction in which they are located at the time of the bankruptcy -- with a regime of "universality," in which all assets are adjudicated in a single jurisdiction. Territoriality is shown to generate a distortion in investment patterns that might lead to an inefficient allocation of capital across countries. We also analyze who gains and who loses from territoriality, explain why countries engage in it even though it reduces global welfare, and identify what can be done to achieve universality.

Becker, Torbjorn

PD June 1999. **TI** A Dynamic Macro Model for the Pre- and Postrevolution Islamic Republic of Iran. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/82; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 28. **PR** not available. **JE** C32, E31, E41, E52, F41. **KW** Output. Inflation. Exchange Rates. Real Shocks. Nominal Shocks.

AB This paper uses a common trends model to study how prices, the black market exchange rate, money, and real output have developed over a period covering both pre- and post-revolution Iranian data. It is shown that monetary shocks have significant short-run effects on output, but permanent effects on the price level and exchange rate, that is, expansionary monetary policy is not consistent with achieving low inflation or a stable unified exchange rate. The real shocks generate higher growth and lower inflation, suggesting that supply-side policies are consistent with the goals in the Islamic Republic of Iran's second five-year development plan.

PD July 1999. **TI** Public Debt Management and Bailouts. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/103; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 21. **PR** not available. **JE** E62, G11, G38, H63. **KW** Tax Smoothing. Portfolio Choice. Moral Hazard. Bailouts. Debt Management.

AB This paper addresses how public debt should be managed to reduce the cost of private sector bailouts. It uses a tax smoothing model to show that bailouts affect the timing of government deficits and surpluses as well as the composition of public debt. In general, public debt managers will have to monitor the private sector's leverage and portfolio composition in order to design the tax smoothing policy. This contrasts with Ricardian models where households monitor the government's debt. The moral hazard aspect of defaults is also shown to be important in determining an optimal government debt strategy.

Bekaert, Geert

TI Regime Switches in Interest Rates. **AU** Ang, Andrew; Bekaert, Geert.

Benassy-Quere, Agnes

PD June 1997. **TI** The Euro and Exchange Rate Stability. **AU** Benassy-Quere, Agnes; Mojon, Benoit; Pisani-Ferry, Jean. **AA** Benassy-Quere: Universite de Lille II and CEPII; Mojon and Pisani- Ferry: CEPII. **SR** CEPII Working Paper: 97/12; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 47. **PR** Free. **JE** E58, F31, F32, F33. **KW** European Union. Exchange Rates. Euro Zone. Volatility. Central Banks.

AB The move to monetary union in Europe will represent a major change for the International Monetary System. Indeed, it will be the first time that large countries relinquish their national currencies to create a new, common money. This paper investigates the impact it will have on global exchange rate stability. More precisely, the authors examine whether the real exchange rate of the euro vis-a-vis third currencies will in the long run be more or less stable than the average real exchange rate of the corresponding basket of European currencies. The reasons for investigating this issue are twofold. First, it is sometimes argued that EMU could give rise to a transfer of volatility, i.e. that the removal of exchange rate instability within Europe could result in a higher instability between Europe and the rest of the world. Second, the European Central Bank could be less interested in achieving exchange rate stability.

PD October 1997. **TI** Optimal Pegs for Asian Currencies. **AA** Universite de Lille II and CEPII. **SR** CEPII Working Paper: 97/14; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 25. **PR** Free. **JE** F31, F33, F36. **KW** Optimum Currency Areas. International Currencies. Currency Pegs. Exchange Rates. Asia.

AB Through cross-country estimations, the authors show that, in contradiction to the behavior of European currencies vis-a-vis the Deutschemark, the relative stability of Asian currencies against the U.S. dollar (until the 1997 crisis) cannot be justified by the theory of optimal currency areas. The analysis developed in the paper relies on the fact that Asian countries do not simply try to stabilize output, as assumed by the theory of optimum currency areas. Because growth heavily relies on the development of exports and on foreign direct investment, monetary authorities seem to stress the stability of the real effective exchange rate as the intermediate target. In such a framework, the authors show that pegging the U.S. dollar is the result of the lack of regional monetary cooperation: each country chooses to peg the U.S. dollar because this is the choice of its Asian partners.

PD March 1998. **TI** EMU and Transatlantic Exchange Rate Stability. **AU** Benassy-Quere, Agnes; Mojon, Benoit. **AA** Benassy-Quere: Universite de Lille II and CEPII. Mojon: CEPII. **SR** CEPII Working Paper: 98/02; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 33. **PR** Free. **JE** E52, F20, F31, F33. **KW** EMU. Euro Exchange Rates. Stochastic Simulations. European Union.

AB The impact of EMU on the transatlantic exchange rate stability raises the more general question of whether the exchange rate is a useful adjustment instrument or a source of instability. We estimate a simple, three-country model for the United States, Germany and France, over the 1972-1995 period. Then we compare EMU, ERM and a floating regime through stochastic simulations. We show that EMU could reduce the variability of the transatlantic exchange rate compared both to the ERM and to a floating regime, even if the removal of shocks to the intra-European risk premium is not attributed to the regime shift.

PD July 1998. **TI** The International Role of the Euro. **AU** Benassy-Quere, Agnes; Mojon, Benoit; Schor, Armand-Denis. **AA** Benassy-Quere: Universite de Lille II and CEPII. Mojon: CEPII. Schor: Universite de Lille II. **SR** CEPII Working Paper: 98/03; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 59. **PR** Free. **JE** E58, F20, F31, F33, F42. **KW** European Union. Euro. Exchange Rates. International Currency. Policy Coordination.

AB The creation of the EMU is a major change for the International Monetary System for three main reasons: the euro will acquire some of the attributes of an international currency; the monetary policy of EMU members will involve a major shift which could affect the behavior of the transatlantic exchange rate; the emergence of the euro as an international currency and the institutional changes with the commitment of the ECB to maintain stable prices should lead to a shift in the practice of international cooperation. The paper discusses why the internationalization of the euro will be neither automatic nor rapid, why and how the euro could be a strong currency, and how it will transform the practice of international policy coordination.

PD July 1998. **TI** Pegging the CEEC's Currencies to the Euro. **AU** Benassy-Quere, Agnes; Lahreche-Revil, Amina. **AA** Benassy-Quere: Universite de Lille II and CEPII. Lahreche-Revil: Universite d'Amiens and CEPII. **SR** CEPII Working Paper: 98/04; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 29. **PR** Free. **JE** E58, F31, F33, F36. **KW** Optimum Currency Areas. International Currencies. Monetary Pegs. Central Europe. Eastern Europe.

AB This paper studies whether Central and Eastern European Countries (CEEC's) will have an incentive to peg their currencies to the euro, which could then emerge as a regional anchor in the area surrounding the eleven countries initially constituting the euro-zone. It studies whether the behavior of CEECs' currencies over 1992-1996 matches the theory of optimal currency areas. Adapting a cross-section estimation method initiated by Bayoumi and Eichengreen (1997) on a sample of 49 countries, we show the CEEC's should stabilize their currencies more against the euro than against the dollar. It proposes a theoretical model for the choice of a real basket peg, when public authorities encounter an external financial constraint. Calibrating the model shows that the CEEC's will have an incentive to peg their currencies in real terms to the euro or to baskets in which the euro is prominent, whether or not they can cooperate with each other.

Bensidoun, Isabelle

PD January 1997. **TI** Interest Rates in East Asia Countries: Internal Financial Structures and International Linkages. **AU** Bensidoun, Isabelle; Coudert, Virginie; Nayman, Laurence. **AA** CEPII. **SR** CEPII Working Paper: 97/02; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 31. **PR** Free. **JE** E43, E44, F36, G21. **KW** Interest Rates. Financial Markets. International Linkages. Cointegration. Causality Tests.

AB Research generally suggests that the dollar is still the dominant currency in East Asia. The methods used to obtain such results are often based on interest rate parity tests, with the implicit assumption that the overall monetary stance of a country may be revealed by a single rate of interest. However, this assumption can be challenged for countries which have not yet completed internal financial liberalization. The present study uses a two-step method to look at this issue, by first evaluating internal financial integration prior to estimating international links. To begin with, cointegration tests are carried out to estimate the relationship between central bank benchmark rates and other domestic interest rates, deposit or lending rates. Thereafter, the influence of American and Japanese rates on Asian rates is evaluated, using Granger causality tests. The sample studied includes eight countries: Korea, Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, Taiwan and Thailand.

Berg, Andrew

PD May 1999. **TI** The Evolution of Output in Transition Economies: Explaining the Differences. **AU** Berg, Andrew; Borensztein, Eduardo; Sahay, Ratna; Zettelmeyer, Jeromin. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/73; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 77. **PR** not available. **JE** E32, O57, P24, P27, P47. **KW** Transition Economies. Growth. Output Decline. Recovery. Structural Reforms.

AB What are the relative roles of macroeconomic variables, structural policies, and initial conditions in explaining the time path of output in transition and the large observed difference in output performance across transition economies? Using a sample of 26 countries, this paper follows a general-to-specific modeling approach that allows for differential effects of policies and initial conditions on the private and state sectors and for time-dependent effects of initial conditions. While showing some fragility to model specification, the results point to the preeminence of structural reforms over both initial conditions and macroeconomic variables in explaining cross-country differences in performance and the timing of the recovery.

Berger, Allen N.

PD February 1999. **TI** What Explains the Dramatic Changes in Cost and Profit Performance of the U.S. Banking Industry? **AU** Berger, Allen N.; Mester, Loretta J. **AA** Berger: Board of Governors of the Federal Reserve System and University of Pennsylvania. Mester: Federal Reserve Bank of Philadelphia and University of Pennsylvania. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/01; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 35. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** E58, E61, F33, G21, G28. **KW** Banking. Productivity. Efficiency. Costs. Profits.

AB We investigate the sources of recent changes in the performance of U.S. banks using concepts and techniques borrowed from the cross-section efficiency literature. Our most striking result is that during 1991- 1997, cost productivity worsened while profit productivity improved substantially, particularly for banks engaging in mergers. The data are consistent with the hypothesis that banks tried to maximize profits by raising revenues as well as reducing costs, and that banks provided additional services or higher service quality that raised costs but also raised revenues by more than the cost increases. The results suggest that methods that exclude revenues may be misleading.

PD May 1999. **TI** Why Are Bank Profits So Persistent? The Roles of Product Market Competition, Informational Opacity, and Regional/Macroeconomic Shocks. **AU** Berger, Allen N.; Bonime, Seth D.; Covitz, Daniel M.; Hancock, Diana. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/28; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 37. **PR** no charge. **JE** G21, G28, L11, L51, L89. **KW** Banking. Persistence. Profits. Regulation. Market Structure.

AB We investigate how banking market competition, informational opacity, and sensitivity to shocks have changed over the last three decades by examining the persistence of firm-level rents. We develop propagation mechanisms with testable implications to isolate the sources of persistence. Our analysis suggests that different processes underlie persistent performance at the high and low ends of the distribution. Our tests suggest that impediments to competition and informational opacity continue to be strong determinants of performance; that the reduction in geographic regulatory restrictions had little effect on competitiveness; and that performance remains sensitive to regional/macroeconomic shocks. The findings also suggest reasons for the recent record profitability of the industry.

Bergin, Paul R.

PD April 1998. **TI** Staggered Price Setting and Endogenous Persistence. **AU** Bergin, Paul R.; Feenstra, Robert C. **AA** Bergin: University of California, Davis. Feenstra: University of California, Davis and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6492; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D57, D58, E31, E50. **KW** Staggered Price-Setting. Translog Preferences. Endogenous Persistence. Price-Setting Rules.

AB This paper generates persistent effects of a monetary disturbance in the context of staggered price-setters. Previous research has been restricted by the CES functional form to price-setting rules that are constant markups over marginal costs. The present paper considers a translog form for preferences and an input-output structure for production in the context of a dynamic general equilibrium model of monopolistically competitive staggered price-setters. We derive a price- setting rule that is a function of marginal cost and also competitors' prices. This rule better captures the interaction of price-setters envisioned in Taylor (1980) and Blanchard (1983) in their early work on staggered contracts. The model is able to generate reasonable persistence, and also confirms the conjecture of Taylor and Blanchard that increasing the number of contracting groups increases the degree of persistence.

Berk, Jan Marc

PD June 1999. **TI** Co-Movements in Long-Term Interest Rates and the Role of PPP-Based Exchange Rate Expectations. **AU** Berk, Jan Marc; Knot, Klaas H. W. **AA** Berk: De Nederlandsche Bank. Knot: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/81; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 25. **PR** not available. **JE** E43, E44, F31, F36, G10. **KW** Interest Rates. Purchasing Power Parity. Exchange Rates. Bonds.

AB This paper investigates international co-movement in bond yields by testing for uncovered interest parity (UIP). Existing work is supplemented by focusing on long instead of short-term interest rates and by employing exchange rate expectations derived from purchasing power parity (PPP) instead of actual outcomes. Among the major currencies during 1975-97, the paper does not find a further increase in co-movement beyond that associated with the wave of financial market liberalization in the early 1980s. Given the similarity between PPP- based UIP tests and those employing actual exchange rate outcomes, the value added of the former lies mainly with data availability.

Berkowitz, Jeremy

PD June 1999. **TI** A Coherent Framework for Stress-Testing. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/29; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 14. **PR** no charge. **JE** G11, G13, G18. **KW** Stress-Tests. Risk Management. Regulation. Portfolio Choice. Value- at-Risk.

AB In recent months and years the idea of supplementing VaR estimates with" stress-testing" has been met with lavish praise and has worked its way into all sorts of regulatory documents. The call for more and better stress-testing has become a mantra for risk-managers and regulators. This paper holds the standard approach to stress-testing up to a critical light. The current practice is to stress-test outside the basic risk model. Such an approach yields two sets of forecasts -- one from the stress-tests and one from the basic model. The stress scenarios, conducted outside the model, are never explicitly assigned probabilities. Therefore, there is no guidance as to the importance or relevance of the results of stress-tests. Moreover, how to combine the two forecasts into a usable risk metric is not known. Instead, the authors suggest folding the stress-tests into the risk model, thereby requiring all scenarios to be assigned probabilities.

Berlin, Mitchell

PD February 2000. **TI** Optimal Financial Contracts For Large Investors: The Role of Lender Liability. **AU** Berlin, Mitchell; Mester, Loretta J. **AA** Berlin: Federal Reserve Bank of Philadelphia. Mester: Federal Reserve Bank of Philadelphia and University of Pennsylvania. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 00/01; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 26. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** G31, G32, G33, K22. **KW** Financial Contracts. Informed Investors. Lender Liability. Equitable Subordination. Bankruptcy.

AB Our paper explores the optimal financial contract for a large investor with potential control over a firm's investment decisions. We show that an optimally designed menu of claims for a large investor will include features resembling a U.S. version of lender liability doctrine, equitable subordination. This doctrine permits a firm's claimants to seek to subordinate a controlling investor's financial claim in bankruptcy court, but only under well-specified conditions. Specifically, we show that this doctrine allows a firm to strike an efficient balance between two concerns: (i) including the large investor to monitor, and (ii) limiting the influence costs that arise when claimants can challenge existing contracts in bankruptcy court. Our paper also provides a partial rationale for a financial system in which powerful creditors do not generally hold blended debt and equity claims.

PD August 1999. **TI** Financial Contracts and the Legal Treatment of Informed Investors. **AU** Berlin, Mitchell; Mester, Loretta J. **AA** Berlin: Federal Reserve Bank of Philadelphia. Mester: Federal Reserve Bank of Philadelphia and University of Pennsylvania. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/08; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 29. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** G21, G32, G33, K22. **KW** Equitable Subordination. Bankruptcy. Banking. Law. Informed Investors.

AB We explore the economic rationale for equitable subordination, a legal doctrine that permits a firm's claimants to seek to subordinate an informed investor's financial claim in bankruptcy court. Fear of equitable subordination is often cited as a reason that banks in the U.S. are wary of taking an active management role in their borrowing firms. We show that an optimally designed menu of claims for a large investor will include features that resemble equitable subordination. Our model provides a partial rationale for a financial system in which powerful creditors do not generally hold blended debt and equity claims.

Bernanke, Ben S.

PD June 1998. **TI** The Liquidity Effect and Long-Run Neutrality. **AU** Bernanke, Ben S.; Mihov, Ilian. **AA** Bernanke: Princeton University and National Bureau of Economic Research. Mihov: INSEAD. **SR** National Bureau of Economic Research Working Paper: 6608; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 36. **PR** $5.00. **JE** E43, E51, E52. **KW** Monetary Policy. Interest Rates. Liquidity Effect. Monetary Neutrality.

AB The propositions that monetary expansion lowers short-term nominal interest rates (the liquidity effect), and that

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

monetary policy does not have long-run real effects (long-run neutrality), are widely accepted, yet to date the empirical evidence for both is mixed. We reconsider both propositions simultaneously in a structural VAR context, using a model of the market for bank reserves due to Bernanke and Mihov (forthcoming). We find little basis for rejecting either the liquidity effect or long-run neutrality. Our results are robust over the space of admissible model parameter values, and to the use of long- run rather than short-run identifying restrictions.

Bernard, Andrew B.

PD April 1998. **TI** Export Entry and Exit by German Firms. **AU** Bernard, Andrew B.; Wagner, Joachim. **AA** Bernard: Yale School of Management and National Bureau of Economic Research. Wagner: Institut fur Volkswirtschaftslehre, Universitat Luneburg. **SR** National Bureau of Economic Research Working Paper: 6538; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D21, F23, L60. **KW** Export Entry. German Firms. Plant Characteristics. Sunk Costs.

AB This paper examines the decision to enter the export market by German firms. While exports have played an important role in recent German business cycle movements, little is known about the export supply response of German firms. This paper presents a dynamic model of the export decision by a profit-maximizing firm. Using a panel of German manufacturing plants, we test for the role of plant characteristics and sunk costs in the entry decision. We find evidence for substantial sunk costs in export entry; exporting today by a plant increases the probability that the plant will export tomorrow by 50 percent. This advantage depreciates quickly, falling by two thirds in a year. We also find evidence that plant success, as measured by size and productivity, increases the likelihood of exporting.

PD May 1998. **TI** Understanding Increasing and Decreasing Wage Inequality. **AU** Bernard, Andrew B.; Jensen, J. Bradford. **AA** Bernard: Yale School of Management and and National Bureau of Economic Research. Jensen: Carnegie Mellon University. **SR** National Bureau of Economic Research Working Paper: 6571; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** J16, J31, J61, O30. **KW** Wage Inequality. Labor Markets. Manufacturing.

AB This paper uses data on inequality within U.S. states to test hypotheses about the sources of rising wage inequality during the 1970's and 1980's. State labor markets are found to respond to local demand shocks in the short and medium run and to national (industry) demand shocks only after long intervals. The measure of wage inequality employed in the paper is the (log) ratio of the weekly wage at the 90th percentile to that at the 10th percentile in the state after controlling for observable characteristics of the workers. Individual states are found to have very different levels and changes of inequality. For example, Pennsylvania and Georgia had the second lowest and ninth highest 90-10 ratios respectively in 1970. This paper finds that changes in industrial composition, in particular the loss of durable manufacturing jobs, are strongly correlated with inequality increases.

Bernstein, Jeffrey I.

PD March 1998. **TI** Total Factor Productivity Growth in the Canadian Life Insurance Industry: 1979-1989. **AA** Carleton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6475; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 32. **PR** $5.00. **JE** D24, G22, O33. **KW** Factor Productivity. Growth. Life Insurance. Technological Change.

AB This is the first paper to directly measure and decompose total factor productivity growth (TFPG) for the Canadian life insurance industry. TFPG averaged 1.0 percent per year over the period from 1979 to 1989, thereby outperforming many manufacturing industries. The rate of TFPG was 0.2 percent in the first half of the 1980's due to the depressed economy and 1.9 percent in the last half of the decade. Technological change was the major element contributing to TFPG. There was a large residual element in the decomposition of TFPG, reflecting possible adjustment costs associated with new information processing technologies.

Berry, Steven

PD March 1998. **TI** Differentiated Products Demand Systems From a Combination of Micro and Macro Data: The New Car Market. **AU** Berry, Steven; Levinsohn, James; Pakes, Ariel. **AA** Berry and Pakes: Yale University and National Bureau of Economic Research. Levinsohn: University of Michigan and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6481; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 38. **PR** $5.00. **JE** D11, D12, D43, L92. **KW** Demand Systems. Automobiles. Differentiated Products. Substitution Patterns.

AB In this paper, we exploit new sources of cross-sectional data to estimate a detailed product-level demand system for new passenger vehicles. We use four data sources: on the characteristics of products, on the attributes of the U.S. population of households, on the match between the first and second vehicle choices of the household, and on the match between households' attributes and first choice vehicles. We show that these data solve some, but not all, of the traditional problems in estimating differentiated products demand systems and indicate which data sources are important for which problem. The data is rich enough to reveal a rather complex substitution pattern, requiring a quite general modeling framework. Together the data and model make a detailed analysis of industry demand possible.

Berthold, Norbert

PD June 1999. **TI** Real Wage Rigidities, Fiscal Policy, and the Stability of EMU in the Transition Phase. **AU** Berthold, Norbert; Fehn, Rainer; Thode, Eric. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/83; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 30. **PR** not available. **JE** E24, E44, E63, F33, J31. **KW** European Union. Wage Rigidity. Fiscal Policy. Unemployment. Labor Markets.

AB EMU started with eleven member countries as scheduled on January 1, 1999. The paper shows that the primacy of politics over economics in this decision could have serious consequences concerning the stability of EMU in the transition phase. Speculative attacks against currencies which are in economic distress due to asymmetric shocks can still happen. A speculative attack as such cannot force a country out of EMU. However, the country concerned might voluntarily decide to leave the system as the costs of staying inside EMU, e.g., due to further rising unemployment, become too large to bear.

Bertrand, Marianne

PD October 1998. **TI** Is There Discretion in Wage Setting? A Test Using Takeover Legislation. **AU** Bertrand, Marianne; Mullainathan, Sendhil. **AA** Bertrand: Princeton University and National Bureau of Economic Research. Mullainathan: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/19; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 37. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** D82, G34, J31, J41, M12. **KW** Principal Agent. Wage Determination. Takeovers. Expense Preference. Managerial Discretion.
AB Anecdotal evidence suggests that uncontrolled managers let wages rise above competitive levels. In this paper, the authors use states' passage of anti-takeover legislation as a source of independent variation in the extent of managerial discretion. Passed in the 1980s, these laws seriously limited takeovers of firms incorporated in legislating states. Since many view hostile takeovers as an important disciplining device, these laws potentially raised managerial discretion in affected firms. If uncontrolled managers pay higher wages, the authors expect wages to rise following these laws. Using firm-level data, they find that relative to a control group, annual wages for firms incorporated in states passing laws did indeed rise by 1 to 2 percent. The findings are robust to a battery of specification checks and do not appear to be contaminated by the political economy of the laws or other sources of bias. The results suggest that discretion significantly affects wages.

TI Executive Compensation and Incentives: The Impact of Takeover Legislation. **AU** Mullainathan, Sendhil; Bertrand, Marianne.

TI Network Effects and Welfare Cultures. **AU** Mullainathan, Sendhil; Bertrand, Marianne; Luttmer, Erzo E. P.

Besley, Timothy J.

PD April 1998. **TI** Vertical Externalities in Tax Setting: Evidence from Gasoline and Cigarettes. **AU** Besley, Timothy J.; Rosen, Harvey S. **AA** Besley: London School of Economics and National Bureau of Economic Research. Rosen: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6517; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** H21, H23, H71, H77. **KW** Tax Base. State Taxes. Federal Taxes. Interdependent Taxation.
AB A common feature of federal systems is that tax bases are joint property. Consequently, state and federal tax setting decisions are interdependent. Our aim here is to put forward a rudimentary theoretical analysis of this phenomenon, and to use the theory as a framework for econometrically estimating the magnitude of the responses. We find that when the federal government increases taxes, there is a significant positive response of state taxes. For example, a 10-cent per gallon increase in the federal tax rate on gasoline leads to a 3.2-cent increase in the state tax rate.

Beyer, Andreas

PD March 1998. **TI** Monetary Transmission in Germany: Evidence From a Structural Econometric Model. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/05; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 31. **PR** Free. **JE** C30, E43, E52. **KW** Cointegration. Monetary Transmission. Monetary Policy. Interest Rates.
AB In this paper a cointegrated system represented as a simultaneous Vector Equilibrium Correction Model for money, prices, output and interest rates in Germany is estimated. The model gives insight into the process of transmission mechanisms of the Bundesbank's monetary policy. The empirical results are consistent with markets' perceptions of a credible monetary policy by which the Bundesbank sticks to its announced monetary targets. A policy reaction function for short-term interest rates is found which is very similar to a Taylor-type feedback rule.

PD June 1998. **TI** European Money Demand and the Role of UK for its Stability: A Cointegration Analysis. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/07; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 28. **PR** Free. **JE** C30, C51, E41, E52, F33. **KW** Money Demand. Cointegration. Parameter Stability. Super Exogeneity. European Union.
AB This paper develops equilibrium correction models for money demand of European-wide monetary aggregates based on a multivariate cointegration analysis. It will be shown that whether or not the UK is a member of the monetary union does not affect the empirical stability of area-wide money demand models. However, there is evidence that the properties of a money demand model for an area that previously did not include UK might change just when the UK will join the union. The models' dynamics and the superexogeneity status of output are different in models that do contain UK in their areas compared with those which do not.

PD August 1998. **TI** Encompassing the VAR: A Formalization of Seasonal Encompassing with an Application on a German Macromodel. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/12; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 17. **PR** Free. **JE** C32, C51, C52. **KW** Encompassing. Seasonality. Cointegration. Structural Vector. Equilibrium Correction.
AB In this paper we apply the encompassing principle to test whether a model that has been estimated with seasonally adjusted data (SA) can encompass a model that is based on non-seasonally-adjusted (NSA) data. Building upon and extending the work by Ericsson, Hendry and Tran (1994), who analyze this question in a single equation framework, we will suggest how to test whether a SA model which is estimated as a system of simultaneous equations can "seasonally encompass" a NSA model. This paper formalizes the test procedure and

provides an application to a German macromodel.

Beyer, Hans-Joachim

PD May 1999. **TI** Economic and Legal Considerations of Optimal Privatization: Case Studies of Mortgage Firms (DePFa Group and Fannie Mae). **AU** Beyer, Hans-Joachim; Dziobek, Claudia; Barrett, John R. **AA** Beyer: Association of Public Sector Banks. Dziobek: International Monetary Fund. Garrett: University of Tennessee at Chattanooga. **SR** International Monetary Fund Working Paper: WP/99/69; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 25. **PR** not available. **JE** G21, G38, L32, L33, L51. **KW** Privatization. Financial Regulation. State Banks. Fannie Mae. DePfa.

AB Successful privatization must be accompanied by the complete removal of privileges and any public policy mission. Bank behavior changes rapidly as profit maximization replaces the bureaucratic objective function. Once privileges are granted, they are difficult to remove. Therefore, privatization is a one-time (nonreversible) operation. The German mortgage bank, DePfa, went through a carefully planned and lengthy privatization process that was successful. Fannie Mae, the U.S. mortgage firm, became a privately owned institution endowed with special privileges, which led to a quasi-monopoly position. This resulted in suboptimal financial sector performance. Fannie Mae's special privileges have proven resistant to reform efforts.

Bhattacharya, Rina

PD August 1999. **TI** Private Sector Consumption Behavior and Non-Keynesian Effects of Fiscal Policy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/112; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 27. **PR** not available. **JE** D91, E21, E62, H69. **KW** Consumption. Fiscal Policy. Debt. Government Consumption. Ricardian Behavior.

AB This paper explores the hypothesis that the propensity to consume out of income is not constant but varies, perhaps in a nonlinear fashion, with fiscal variables. It examines whether there is any empirical evidence to support the hypothesis that households move from non- Ricardian to Ricardian behavior as government debt reaches high levels and as uncertainty about future taxes increases. The paper also examines the possibility of a relationship (along the lines of the Bertola-Drazen model) between the propensity to consume out of income and the government consumption-to-GDP ratio.

Bigsten, Arne

PD July 1997. **TI** Adjustment Costs, Irreversibility and Investment Patterns in African Manufacturing. **AU** Bigsten, Arne; Collier, Paul; Dercon, Stefan; Fafchamps, Marcel; Gauthier, Bernard; Gunning, Jan Willem; Oduro, Abena; Oostendorp, Remco; Pattillo, Catherine; Soderbom, Mans; Teal, Francis; Zeufack, Albert. **AA** Bigsen and Soderbom: University of Goteborg. Collier and Zeufack: The World Bank. Gauthier: Ecole des Hautes Etudes Commerciales. Dercon: University of Oxford and Katholieke Universiteit Leuven. Fafchamps and Teal: University of Oxford. Gunning: University of Oxford and Free University. Oduro: University of Ghana. Oostendorp: Free University. Pattillo: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/99; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 50. **PR** not available. **JE** C14, E22, O12, O16. **KW** African Manufacturing. Investment. Adjustment Costs. Duration Dependence. Nonparametric Methods.

AB This paper examines dynamic patterns of investment in Cameroon, Ghana, Kenya, Zambia and Zimbabwe, assessing the consistency of those patterns with different adjustment cost structures. Using survey data on manufacturing firms, we document the importance of zero investment episodes and lumpy investment. The proportion of firms experiencing large investment spikes is significant in explaining aggregate manufacturing investment. Taken together, evidence from descriptive statistics, average investment regressions modeling the response to capital imbalance, and transition data analysis indicate that irreversibility is an important factor considered by firms when making investment plans. The picture is not unanimous however, and some explanations for the mixed results are proposed.

Black, Duncan

PD August 1998. **TI** Urban Evolution in the USA. **AU** Black, Duncan; Henderson, Vernon. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 98/21; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 40. **PR** no charge. **JE** O18, O51, R11, R12. **KW** City Size. Urban Evolution. Urban Development. City Growth. Economic Geography.

AB On a sustained basis, cities are of non-uniform size. This paper addresses three basic issues, which arise from this simple observation, by examining the size distribution of U.S. cities over the period 1900- 1990. First, the authors explore the reasons why there is a wide distribution of city sizes and examine the determinants of the position of cities within that distribution. Second, they characterize the evolution of the size distribution of cities and ask whether the relative size distribution of cities has remained stable over time. Third, they examine the degree and determinants of mobility of individual cities within this distribution, asking to what extent individual cities are moving up and down the distribution and how this movement is influenced by cities' geographic characteristics. They use a newly constructed data set with consistent metropolitan area definitions over this century, discussing the issues and linking their results to the relevant literature.

Blanchard, Olivier

PD May 1998. **TI** Revisiting European Unemployment: Unemployment, Capital Accumulation, and Factor Prices. **AA** Harvard University and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6566; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 37. **PR** $5.00. **JE** E10, E22, E24, J23, J64. **KW** Capital. Unemployment. Factor Prices. Labor Demand. Europe.

AB This paper starts from two sets of facts about Continental Europe: the steady increase in unemployment since the early 1970's and the evolution of the capital share. The paper then develops a model of capital accumulation, unemployment and factor prices. Using this model to look at the data, it reaches two main conclusions: The initial increase in unemployment, from the mid-1970's to the mid-1980's, was mostly due to a failure of wages to adjust to the slowdown in underlying factor productivity growth. The reason why wage moderation, clearly evident in the data since the mid-1980's, has not lead to a decrease in unemployment is that another type of shift has been at work, this time on the labor demand side. At a given wage and a given capital stock, firms have steadily decreased employment. The authors discuss two potential lines of explanation for what lies behind this labor demand shift.

Bleakley, Hoyt

PD July 1996. **TI** Computationally Efficient Solution and Maximum Likelihood Estimation of Nonlinear Rational Expectations Models. **AU** Bleakley, Hoyt; Fuhrer, Jeffrey C. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/02; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 32. **PR** No charge. **JE** C51, C63, E43, E52. **KW** Rational Expectations. Model Estimation. Algorithms. Computational Techniques. Maximum Likelihood.

AB This paper presents new, computationally efficient algorithms for solution and estimation of nonlinear dynamic rational expectations models. The innovations in the algorithms are as follows: (1) The entire solution path is obtained simultaneously by taking a small number of Newton steps, using analytic derivatives, over the entire path; (2) The terminal conditions for the solution path are derived from the uniqueness and stability conditions from the linearization of the model around the terminus of the solution path; (3) Unit roots are allowed; (4) Very general models with expectational identities and singularities of the type handled by the King-Watson (1995a,b) linear algorithms are allowed; and (5) Rank-deficient covariance matrices that arise owing to the presence of expectational identities are admissible. Reasonably complex models are solved in less than a second on a Sun Sparc20, making derivative-based estimation methods feasible. Algorithms for maximum likelihood estimation and sample estimation problems are presented.

Bleaney, Michael

PD May 1999. **TI** Price and Monetary Dynamics Under Alternative Exchange Rate Regimes. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/67; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 18. **PR** not available. **JE** E31, E51, E52, F31, F41. **KW** Prices. Exchange Rates. Money. Inflation. Monetary Policy.

AB According to theory, inflation persistence should have less variance across countries under pegged than floating exchange rates, but not necessarily a lower mean. The paper tests this prediction on postwar data for OECD countries. After allowing for the upward bias to persistence estimates created by shifts in mean inflation, the paper finds persistence has a greater spread (but not a higher mean) in the floating-rate period, as predicted by theory. Monetary growth has been much less accommodative of inflation under floating rates, most probably because of the shifts in monetary policy rather than those in exchange rate regime.

Bloch, Francis

PD February 1999. **TI** Trade Fragmentation and Coordination in Bilateral Oligopolies. **AU** Bloch, Francis; Ferrer, Helene. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9908; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 9. **PR** $100 per year. **JE** C62, C72, D44, F15. **KW** Fragmented Bids. Multiple Markets. Existence of Equilibria. Market Game.

AB This paper studies a strategic market game where agents fragment their bids on different markets. Simple conditions for existence of an interior equilibrium point are provided. In equilibrium, all agents are active on the same markets and prices are identical across markets, so that all equilibria are equivalent to an equilibrium where all agents trade on a single market.

PD December 1999. **TI** Agenda Control in Coalition Formation. **AU** Bloch, Francis; Rottier, Stephane. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9967; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 27. **PR** $100 per year. **JE** C72, D72. **KW** Agenda Control. Coalition Formation. Apex Games. Winning Coalition.

AB Theoretical models of government formation in political science usually assume that the head of state is non-strategic. In this paper, we analyze the power of an agenda setter who chooses the order in which players are recognized to form coalitions in simple games. We characterize those sets of players which can be imposed in the equilibrium coalition and show that the only decisive structures where the agenda setter can impose the presence of any minimal winning coalition are apex games, where a large player forms a winning coalition with any of the small players.

Blomquist, Soren

PD February 1999. **TI** Nonparametric Estimation With Nonlinear Budget Sets. **AU** Blomquist, Soren; Newey, Whitney K. **AA** Blomquist: Uppsala University. Newey: Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/03; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 42. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C14, C24, C51, D12, J22. **KW** Nonlinear Budget Sets. Nonparametric Estimation. Additive Models.

AB Choice models with nonlinear budget sets are important in econometrics. In this paper we propose a nonparametric approach to estimation of choice models with nonlinear budget sets. The basic idea is to think of the choice, in our case hours of labor supply, as being a function of the entire budget set. Then we can account non- parametrically for a nonlinear budget set by estimating a non-parametric regression where the variable in the regression is the budget set. We reduce the dimensionality of this problem by exploiting additive structure implied by utility maximization with convex budget sets. This structure leads to a polynomial convergence rate for the estimator. We give asymptotic normality results also. The usefulness of the estimator is demonstrated in Monte Carlo and empirical work, where we find it can have a large impact on estimated effects of tax changes.

Blumenthal, Marsha

PD May 1998. **TI** The Determinants of Income Tax Compliance: Evidence from a Controlled Experiment in Minnesota. **AU** Blumenthal, Marsha; Christian, Charles; Slemrod, Joel. **AA** Blumenthal: University of St. Thomas. Christian: Arizona State University. Slemrod: University of Michigan Business School and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6575; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** C93, H24, H26. **KW** Income Taxes. Tax Evasion. Audits. Experiments.

AB This paper reports on the results of a controlled experiment in Minnesota in which a random sample of taxpayers was informed that their income tax returns would certainly be closely examined. The authors analyze reported income of this sample of taxpayers, reported income on their previous year's returns, and reported income from the two corresponding years' returns of a control group of taxpayers that did not receive the letter. The authors find that the treatment effect varies depending on the level of income. Low and middle income taxpayers increased reported income and tax liability relative to the control group, which the authors interpret as indicating the presence of noncompliance. However, the reported income of the high-income treatment group fell sharply relative to the control group. The authors suggest a model based on tax audits as a negotiation that can explain this apparently perverse result.

Boccard, Nicolas

PD March 1999. **TI** Racial Discrimination and Redlining in Cities. **AU** Boccard, Nicolas; Zenou, Yves. **AA** Boccard: Universite de Liege and Lovain-la-Neuve. Zenou: CERAS, Ecole Nationale des Pons et Chaussees and Universite de Maine. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9913; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 30. **PR** $100 per year. **JE** J15, J31, J64, R23. **KW** Racial Discrimination. Spatial Discrimination. Access Costs. Equilibria.

AB We propose a model where employers have two types of prejudices: racial and spatial discriminations. Because of the first one, black workers have less chance than white workers to find a job. Because of the second one, workers living closer to the city-center have less chance than suburban workers to find a job. In this context, we show that depending on the importance of access costs to employment centers two urban equilibria may emerge. In Equilibrium 1 (the access cost for blacks is quite large), black and white workers are totally separated while in Equilibrium 2 (the access cost for blacks is relatively small), workers are separated by their employment status (the unemployed versus the employed). We then study the labor market equilibrium and its interactions with the land market. We show in particular that both "race" and "space" matter to explain high unemployment rates among blacks.

PD June 1999. **TI** Asymmetries of Information in Centralized Order-Driven Markets. **AU** Boccard, Nicolas; Calcagno, Riccardo. **AA** Boccard: Universite Catholique de Louvain and Universite de Liege. Calcagno: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9935; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 33. **PR** $100 per year. **JE** C72, D51, D82. **KW** Asymmetric Information. Pre-Opening. Insider Trading. Information Revelation.

AB We study the efficiency of the equilibrium price in a centralized, order-driven market where many asymmetrically informed traders are active for many periods. We show that asymmetries of information can lead to sub-optimal information revelation with respect to the symmetric case. In particular, we assess that the more precise the information the higher the incentive to reveal it, and that the value of private information is related to the volume of exogenous trade present on the market. Moreover, we prove that any informed trader, whatever his information, reveals its private signal during an active phase of the market, concluding that long pre-opening phases are not effective as an information discovering device in the presence of strategic players.

PD October 1999. **TI** Relaxing Bertrand Competition: Capacity Commitment Beats Quality Differentiation. **AU** Boccard, Nicolas; Wauthy, Xavier. **AA** Boccard: Universite de Liege and Universite Catholique de Louvain. Wauthy: Facultes Universitaries Saint-Louis, Bruxelles and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9956; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 18. **PR** $100 per year. **JE** C72, D43, L13, L22. **KW** Vertical Differentiation. Capacity. Bertrand Competition. Quality.

AB Both product differentiation through quality and capacity commitment have been shown to relax price competition. However, they have not been considered simultaneously. To this end we consider a three stage game where firms choose quality then commit to capacity and finally compete in price. We show that in equilibrium, firms differentiate their products less than if they were not able to commit to limited capacities. This is because they are able to enjoy Cournot profits at the stage where capacity is chosen. Furthermore if the cost of quality is low, capacity pre-commitment completely eliminates the incentives to differentiate.

Bollerslev, Tim

TI The Distribution of Exchange Rate Volatility. **AU** Andersen, Torben G.; Bollerslev, Tim; Diebold, Francis X.; Labys, Paul.

Bonime, Seth D.

TI Why Are Bank Profits So Persistent? The Roles of Product Market Competition, Informational Opacity, and Regional/Macroeconomic Shocks. **AU** Berger, Allen N.; Bonime, Seth D.; Covitz, Daniel M.; Hancock, Diana.

Bonin, John

PD April 1999. **TI** Lessons from Bank Privatization in Central Europe. **AU** Bonin, John; Wachtel, Paul. **AA** Bonin: Wesleyan University. Wachtel: New York University. **SR** New York University, Salomon Center Working Paper: S/99/20; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website:

www.stern.nyu.edu/salomon. PG 19. PR $5.00 each; $100.00 yearly subscription. JE E58, G21, G34, L33, P21. KW Transition Economies. Banking. Central Banks. Privatization. Restructuring.

AB There are several stages to the development of the banking sectors in transition economies. The first is the establishment of commercial banks as joint stock companies and of a central bank from the Soviet-era mono banks. The second is the restructuring of bank portfolios and the recapitalization of the banks. The third step, privatization, involves a transfer of ownership from the government. The privatization strategies pursued in the formerly planned economies vary from a partial divestiture of shares by the government to a transfer of control to new foreign owners. More often than not, the emphasis on other competing goals leads to a lack of concern with the ultimate goal of transition. Banks should be free of control by the government or by their clients; they should have the ability to apply hard budget constraints in lending activities and develop the capability to manage financial risks.

Bontout, Olivier

TI Sensibilite des Salaires Relatifs Aux Chocs Exogenes de Commerce International et de Progres Technique: Une Evaluation d'Equilibre General. AU Jean, Sebastien; Bontout, Olivier.

Boone, Laurence

PD February 1997. TI Symmetry and Asymmetry of Supply and Demand Shocks in the European Union: A Dynamic Analysis. AA CEPII. SR CEPII Working Paper: 97/03; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. PG 45. PR Free. JE E63, F15, F33, F42. KW Monetary Integration. European Union. Convergence. Vector Autoregressions. Optimal Currency Areas.

AB A couple of years before the start of EMU, there is still no agreement on the state of convergence of European economies, nor on the scale of the costs and benefits of a monetary union. The literature has discussed these issues based on the Optimal Currency Area Theory. The main idea is that the countries gathering in a monetary union will face adjustment costs due to differences in their economic structure. The more similar economic structures are, the lower these costs. This paper uses a sophisticated econometric technique that allows one to get a dynamic measure of the evolving symmetries between European economies, as well as taking into account structural changes. First supply and demand shocks are estimated using VAR analysis. Then the correlation between two countries' series of shocks is dynamically measured. This allows us to provide evidence about the evolution of convergence between the members of the EU.

PD June 1997. TI Estimation du Cycle a l'Aide d'un Modele a Tendance Stochastique et Application du cas au Royaume-Uni. AA CEPII. SR CEPII Working Paper: 97/11; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. PG 30. PR Free. JE C51, C52, C53, E32. KW Business Cycles. Stochastic Trend Model. Hodrick-Prescott Filter. Detrending.

AB Stylized facts of the business cycle are at the forefront of economic research. But most macroeconomic data are trended, i.e. non-stationary. To draw statistical inferences, one needs stationary data. Furthermore, cyclical movements may have a distinct dynamic from long-term underlying trends. The literature offers several familiar transformations, including deterministic detrending, stochastic detrending, and differencing. Amongst these methods, the most widely used is certainly the Hodrick-Prescott filter. However, there has been increasing concern that this filter distorts the data. In a recent paper, Boone and Hall (1995) present a decomposition method based on the stochastic trend model, which appears more satisfactory, not only from an analytical point of view. An extensive Monte Carlo analysis also shows that it extracts in a significantly better way the underlying trend and cycle of a series. This paper explains the method developed by Boone and Hall and contrasts it with the Hodrick Prescott filter.

PD August 1998. TI Sacrifice Ratios in Europe: A Comparison. AU Boone, Laurence; Mojon, Benoit. AA CEPII. SR CEPII Working Paper: 98/07; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. PG 38. PR Free. JE E24, E31, E52, F15, F42. KW Unemployment. Disinflationary Policy. Labor Markets. Monetary Policy. Europe.

AB Inflation is now below 3% almost everywhere in Europe, and at the same time, unemployment has steadily risen. These observations yield questions about the short to medium term impact of the disinflationary policies implemented. Given the structural differences in European labor markets, will these be reflected by differences in the way monetary policy implemented by the European Central Bank will be transmitted through the labor market? This paper tries to assess to what extent the transmission mechanisms are different across Europe and seeks to evaluate whether the building of Europe (Single market and run-up to EMU) has triggered a process of convergence. The econometric methodology used takes its roots in the "revisionist history of the Phillips curve" of King and Watson(1994).

Borenstein, Severin

PD March 1998. TI An Empirical Analysis of the Potential for Market Power in California's Electricity Industry. AU Borenstein, Severin; Bushnell, James. AA Borenstein: University of California, Berkeley and National Bureau of Economic Research. Bushnell: U.C. Energy Institute. SR National Bureau of Economic Research Working Paper: 6463; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. PG 58. PR $5.00. JE D43, L11, L51, L94. KW Electricity Industry. Market Power. Regulation. Elasticity of Demand.

AB We use demand and plant-level cost data to simulate competition in a restructured California electricity market. This approach recognizes that firms might have an incentive to restrict output in order to raise price and enables us to explicitly analyze each firm's ability to do so. We find that, under the current structure of generation ownership, there is potential for significant market power in high demand hours. During some months, congestion over Path 15, the primary in-state north-south transmission line, exacerbates the market power potential in northern California. While these results make deregulation of generation less attractive than if there were no market power, they do not suggest that deregulation would be a mistake.

Nearly all markets exhibit some degree of market power. We find that the levels of hydroelectric production and the elasticity of demand are two of the most important factors in determining the severity of market power, having greater impact on equilibrium prices than the proposed divestitures of California's largest producers. These results indicate that policies promoting the responsiveness of both consumers and producers to price fluctuations can have a significant effect on reducing the market power problem.

Borensztein, Eduardo

TI The Evolution of Output in Transition Economies: Explaining the Differences. **AU** Berg, Andrew; Borensztein, Eduardo; Sahay, Ratna; Zettelmeyer, Jeromin.

Borjas, George J.

PD April 1998. **TI** The Economic Progress of Immigrants. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6506; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E24, F22, J31, J61. **KW** Immigrants. Human Capital. Entry Wage. Wage Growth.

AB This paper presents a theoretical and empirical study of the economic progress experienced by immigrants in the U.S. labor market. The theoretical framework illustrates that the relationship between the entry wage of immigrants and the subsequent rate of wage growth depends on the technology of the human capital production function, particularly the extent of substitution or complementarity between "pre-existing" human capital and post-migration investments. The empirical analysis uses the 1970-1990 decennial Census data. The evidence indicates that the correlation between the log entry wage and the rate of wage growth is positive, but this correlation is weakened and perhaps turns negative when we compare immigrants who start out in the United States with similar human capital endowments. The empirical analysis also indicates that the same source country characteristics that lead to high wages at the time of entry also lead to faster wage growth.

Bos, Charles S.

TI Adaptive Polar Sampling with an Application to a Bayes Measure of Value-at-Risk. **AU** Bauwens, Luc; Bos, Charles S.; Van Dijk, Herman K.

Boucher, Jacqueline

PD September 1999. **TI** Alternative Models of Restructured Electricity Systems Part 1: No Market Power. **AU** Boucher, Jacqueline; Smeers, Yves. **AA** Boucher: Electrabel, Brussels, Belgium. Smeers: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9950; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 31. **PR** $100 per year. **JE** C62, C63, L94. **KW** Equilibrium Concepts. Electricity Systems. Market Simulation.

AB Different equilibrium concepts have been proposed by various authors (Scheweppe et al, Hogan, Chao and Peck, Wu et al) to analyze competitive electricity systems. We establish correspondences between these different models though a single framework and provide additional interpretations of these equilibrium concepts. This unifying conceptual view also provides a computationally feasible approach to simulate the market. It also opens the way to the modeling of some imperfect markets.

Bowles, Samuel

TI Wealth Inequality, Wealth Constraints and Economic Performance. **AU** Bardhan, Pranab; Bowles, Samuel; Gintis, Herbert.

Bowlus, Audra J.

PD February 1998. **TI** The Role of Domestic Abuse in Labor and Marriage Markets: Observing the Unobservables. **AU** Bowlus, Audra J.; Seitz, Shannon N. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9801; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 25. **PR** $10.00 Canadian per paper. **JE** J12, J22, J23, J24, J31. **KW** Labor Force. Domestic Abuse. Marriage. Labor Supply. Divorce.

AB Using a unique Canadian data set on domestic violence, the authors estimate the effects of abuse on marital history as well as current employment of women using a sequential, multi-state model. In the model, spousal abuse affects labor supply through decreases in utility from leisure as well as through reductions in productivity at work and hence the market wage. In addition, abuse is treated as an initially unobserved spousal characteristic that plays a role in the divorce decision, which in turn influences labor supply. The analysis reveals three main findings. First, the effects of domestic abuse on employment differ across marital histories. Second, domestic abuse is a dominant factor in the divorce decision, which in turn is a major determinant of employment. Finally, standard economic information such as age and education plays a minor role in the divorce decision relative to the abuse-related information.

PD February 1998. **TI** Discrimination and Skill Differences in an Equilibrium Search Model. **AU** Bowlus, Audra J.; Eckstein, Zvi. **AA** Bowlus: University of Western Ontario. Eckstein: Tel Aviv University. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9802; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 29. **PR** $10.00 Canadian per paper. **JE** J23, J24, J31, J64, J71. **KW** Discrimination. Skill Differences. Equilibrium Search Model. Wage Differentials. Unemployment.

AB This paper analyzes an equilibrium search model with three sources for wage and unemployment differentials among workers with the same (observed) human capital but different appearance (race): unobserved productivity (skill), search intensities and discrimination due to an appearance-based employer disutility factor. Because these sources affect the earnings distributions differently, empirical identification of these potential sources of wage and unemployment differentials is possible. The authors show that the structural parameters of the model are identifiable using standard labor market survey data. They demonstrate identification using data from the National Longitudinal Survey of Youth. Estimation of these parameters by matching moments from a sample of black and white high school graduates implies: a) blacks have a 9% lower productivity level than whites: b) the disutility factor in employer's preferences is 28% of the white's productivity level; and c) 53% of firms have a disutility factor in their utility toward blacks.

PD October 1998. **TI** Household Structure and Labor Demand in Agriculture: Testing for Separability in Rural China. **AU** Bowlus, Audra J.; Sicular, Terry. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9813; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 35. **PR** $10.00 Canadian per paper. **JE** J22, J23, J43, Q12, R23. **KW** Household Structure. Labor Demand. Agriculture. Labor Supply. Employment.

AB Economic reforms in China have brought rapid growth in nonagricultural employment in rural areas and a substantial shift in the structure of rural employment. These changes have led researchers to question the conventional view of rural China as a labor surplus economy with poorly functioning factor markets. The authors contribute to this debate by testing for separability between the labor demand and supply decisions of households in a typical rural county in northern China. The test, which makes use of unique panel data to control for time-invariant unobservable household characteristics, yields the following results: (1) separability is rejected across a variety of specifications, indicating that factor markets in the early 1990s remained underdeveloped; (2) the conventional view of surplus labor oversimplifies the situation; and (3) separability does hold in areas where substantial employment opportunities exist at the township level, suggesting the need for employment opportunities that transcend village borders.

Boyle, Raymond G.

TI Tobacco Taxes, Smoking Restrictions, and Tobacco Use. **AU** Ohsfeldt, Robert L.; Boyle, Raymond G.; Capilouto, Eli I.

Bradford, David F.

PD March 1998. **TI** Transition To and Tax Rate Flexibility in a Cash-Flow Type Tax. **AA** Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6465; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 31. **PR** $5.00. **JE** D63, E21, H21, H22. **KW** Income Tax. Consumption Tax. Policy Transition. Double Taxation.

AB The difficulty of switching from an income-type to a consumption-type tax is often cited as an obstacle to such a transition. Put simply, the problem is the double taxation of "old savings." Someone who has accumulated wealth under an income tax will be hit with an extra tax on the consumption financed by that accumulation under a consumption tax, which raises issues of equity, political feasibility, and efficiency. Introducing a consumption tax is the same as raising the rate of consumption tax from zero to some positive rate. Consequently, the problem of transition to a consumption tax generalizes to that of changing the rate of consumption tax. This paper considers the design of rules that render consumption taxes in the family of business cash-flow taxes immune to the incentive and incidence effects of changes in rate of tax. Two relatively simple approaches are available: grandfathering the tax rate applicable to a given period's investment or substituting depreciation allowances for the usual expenditure of investment, coupled with a credit for the equivalent of interest on the undepreciated investment stock. One cost of this approach is its requirement to identify true depreciation and, in the second case, the real rate of interest.

Braila, Chrissopighi

PD November 1998. **TI** Assets, Human Capital, and Growth. **AU** Braila, Chrissopighi; Turrini, Alessandro. **AA** Braila: Universite Catholique de Louvain. Turrini: University of Bergamo and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9863; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 17. **PR** $100 per year. **JE** D52, G20, J24, O40. **KW** Incomplete Markets. Human Capital. Growth. Financial Assets.

AB In this paper we illustrate the possible normative relevance of the links between human capital and financial assets via an example related to growth. When the financial structure is complete, growth is indeterminate because individual allocations between human capital and a tradable asset are indeterminate. When the financial structure is incomplete, the growth rate depends on the payoff structure of the assets. An issue of optimality for the structure of asset returns is raised.

Branson, William H.

PD May 1998. **TI** Macroeconomic Policy and Institutions During the Transition to European Union Membership. **AU** Branson, William H.; de Macedo, Jorge Braga; Von Hagen, Jurgen. **AA** Branson: Princeton University and National Bureau of Economic Research. de Macedo: Universidade Nova de Lisboa and National Bureau of Economic Research. Von Hagen: Universitat Bonn. **SR** National Bureau of Economic Research Working Paper: 6555; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 24. **PR** $5.00. **JE** E61, F31, F42. **KW** European Union. Central Europe. Fiscal Stabilization. Exchange Rate.

AB A framework is developed for macroeconomic policy analysis in four countries of Central Europe (CE) in transition to EU membership (Czech Republic, Hungary, Poland, and Slovakia). A Multi-Annual Fiscal Adjustment Strategy (MAFAS) and a Pre-Pegging Exchange Rate Regime (PPERR) appropriate for maintaining internal and external balance are described and evidence on budgetary procedures is presented, in comparison with those prevailing in EU member states. The comparison suggests that the four CE countries are better fit for fiscal stabilization than Greece, Spain and Portugal were in the 1970's. Nevertheless, there is still much room for institutional improvement. A stronger commitment mechanism to fiscal targets at the preparatory stage would improve fiscal performance in all four countries. The adoption of a kind of convergence program would also be make easier if some group procedures can be adopted among them. The four countries also appear to have moved closer to sustainability in their external and internal balance in the last few years so that a MAFAS and a PPERR become credible. The fact that they established Central European Free Trade Agreement (CEFTA, which Slovenia since joined) also helps set them apart from other EU associates in the region.

Buchinsky, Moshe

TI On the Number of Bootstrap Repetitions for BC sub a Confidence Intervals. **AU** Andrews, Donald W. K.; Buchinsky, Moshe.

Bugess, David

PD February 1998. **TI** Canadian Tax Deferred Savings Plans and the Foreign Property Rule. **AU** Bugess, David; Fried, Joel. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9806; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 31. **PR** $10.00 Canadian per paper. **JE** E21, F31, F32, G23, G28. **KW** Foreign Property Rule. Registered Savings Plans. Tax Deferrence. Pension Funds. Saving.

AB This paper argues that the Foreign Property Rule, which limits the foreign content of a Registered Savings Plan to no more than 20% of book value, should be removed as quickly as possible. Given the globalization of financial markets, the FPR does not protect what it is meant to protect -- a pool of savings for investment in Canada. Instead, it distorts the allocation of credit among firms, and forces agents to use more costly instruments -- derivatives -- to achieve desired foreign risk exposure. Since the FPR lowers the return on registered savings without benefiting any identifiable group, removing it would be an unequivocal gain to Canadians.

Buiter, Willem H.

PD April 1998. **TI** Notes on "A Code for Fiscal Stability." **AA** University of Cambridge and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6522; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E22, E62, H61, H62. **KW** Fiscal Stability. Investment. Golden Rule. Balance Sheet.

AB This note comments on two central issues for fiscal policy design in the UK, highlighted in the recent "Code for Fiscal Stability" proposed by the new Labor government. The first concerns the merits of the so- called "golden rule of public sector investment" -- the proposition that, over the cycle, government borrowing should not exceed government capital formation. The second concerns the case for attempting to construct a more comprehensive balance sheet of public sector assets and liabilities, including tangible public sector assets and certain contingent claims. The two main conclusions are that the golden rule is without merit but that, subject to some important caveats, the construction of a more comprehensive government balance sheet is a worthwhile enterprise.

Bushnell, James

TI An Empirical Analysis of the Potential for Market Power in California's Electricity Industry. **AU** Borenstein, Severin; Bushnell, James.

Bussiere, Matthieu

PD July 1999. **TI** External Vulnerability in Emerging Market Economies: How High Liquidity Can Offset Weak Fundamentals and the Effects of Contagion. **AU** Bussiere, Matthieu; Mulder, Christian. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/88; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 22. **PR** not available. **JE** E63, F31, F32, F33, F47. **KW** Vulnerability Indicators. Economic Crises. Emerging Markets. Exchange Rates.

AB This paper investigates the factors behind the 1994 and 1997 crises and whether these can explain the 1998 crisis. The study reveals that: (i) variables used in an Early Warning System model developed by IMF staff scored well in predicting the 1998 crisis out-of-sample; (ii) all three crisis episodes can be well explained by a parsimonious set of core fundamentals and liquidity related variables; and (iii) the presence of an IMF-supported program significantly reduced the depth of crises. The results suggest that as a rule of thumb countries should hold reserves to the tune of short-term debt to avoid contagion-related crises, provided their current deficits are modest and their real effective exchange rates are not significantly misaligned.

Caballero, Ricardo J.

PD July 1998. **TI** Improper Churn: Social Costs and Macroeconomic Consequences. **AU** Caballero, Ricardo J.; Hammour, Muhammad. **AA** Caballero: Massachusetts Institute of Technology and National Bureau of Economic Research. Hammour: Capital Guidance. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/11; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 40. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** E24, E32, E44, J41, J64. **KW** Churn. Recessions. Labor Markets. Financial Markets. Sclerosis.

AB This paper assembles elements that are essential in forming an integral picture of the way a "churning" economy functions, and of the disruptions caused by transactional difficulties in labor and financial markets. The authors couch their analysis in a stochastic equilibrium model anchored with U.S. evidence on gross factor flows and on rents in worker and firm income. They develop a social accounting framework to measure the costs of transactional impediments. They calculate the average social loss associated with structural unemployment and low productivity -- due to technological "sclerosis" and a "scrambling" of productivity rankings in entry and exit decisions. They also estimate the loss from a recession. Although a recessionary shock increases the economy's "turbulence" at impact, semi-structural VAR evidence from U.S. manufacturing indicates that, cumulatively, it results in a "chill" -- which is costly in an economy that suffers from sclerosis.

PD October 1998. **TI** Emerging Market Crises: An Asset Markets Perspective. **AU** Caballero, Ricardo J.; Krishnamurthy, Arvind. **AA** Cabellero: Massachusetts Institute of Technology. Krishnamurthy: Northwestern University. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/18; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge,

MA 02142. **PG** 44. **PR** \$7.00 U.S., Canada, Mexico; \$10.00 other international. **JE** E44, F31, F32, G15, G21. **KW** Capital Flows. Financial Crises. Collateral. Excessive Leverage. Currency Support.
AB International investors reluctance to provide resources to limit the extent of emerging market crises almost invariably plays a key role in bringing a previously (over?)-heated economy to a costly halt. Ultimately, the reason for this breakdown of a country's access to international capital markets lies in the inadequacy of its international collateral. The authors build a framework where this insufficiency and its consequences stem from microeconomic contractual problems. Fire sales of domestic assets naturally arise as the result of desperate competition for scarce international collateral. This begs the question why the private sector does not take steps to ensure sufficient international collateral when crises are likely. The answer lies in the presence of a pecuniary externality. The authors show that contractual problems also lead to a problem of insufficient domestic collateral. The interaction between domestic and international collateral also sheds light on when pre-crisis capital flows ought to be regulated.

Calcagno, Riccardo

TI Asymmetries of Information in Centralized Order-Driven Markets. **AU** Boccard, Nicolas; Calcagno, Riccardo.

Caldwell, Steven

PD June 1998. **TI** Social Security's Treatment of Postwar Americans. **AU** Caldwell, Steven; Favrealut, Melissa; Gantman, Alla; Gokhale, Jagadeesh; Johnson, Thomas; Kotlikoff, Laurence J. **AA** Caldwell, Favrealut and Johnson: Cornell University. Gantman: Boston University. Gokhale: Federal Reserve Bank of Cleveland. Kotlikoff: Boston University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6603; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 61. **PR** \$5.00. **JE** H55. **KW** Social Security. Taxation. Public Pensions.
AB Social Security faces a major long-term funding crisis. This paper uses CORSIM -- a dynamic micro simulation model -- and SOCSIM -- a detailed Social Security benefit calculator -- to study social security's treatment of postwar Americans. The study finds that baby boomers will, under current law, lose roughly 5 cents of every dollar they earn to the OASI program in taxes net of benefits. For today's children the figure is 7 cents. Measured as a proportion of their lifetime labor incomes, the biggest losers are the middle class, but measured in absolute dollars, the rich lose the most. Out of every dollar that postwar Americans contribute to the OASI system, 74 cents represents a pure tax. While the system has been partially effective in pooling risk across households, it offers postwar cohorts internal rates of return on their contributions that are quite low.

Campbell, John Y.

PD March 1998. **TI** Asset Prices, Consumption, and the Business Cycle. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6485; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** \$5.00. **JE** E21, E32, G12. **KW** Asset Pricing. Consumption. Risk. Business Cycle.
AB This paper reviews the behavior of financial asset prices in relation to consumption. The paper lists some important stylized facts that characterize U.S. data, and relates them to recent developments in equilibrium asset pricing theory. Data from other countries are examined to see which features of the U.S. experience apply more generally. The paper argues that to make sense of asset market behavior one needs a model in which the market price of risk is high, time-varying, and correlated with the state of economy. Models that have this feature, including models with habit-formation in utility, heterogeneous investors, and irrational expectations, are discussed. The main focus is on stock returns and short-term real interest rates, but bond returns are also considered.

Canzoneri, Matthew B.

PD March 1998. **TI** Is the Price Level Determined by the Needs of Fiscal Solvency? **AU** Canzoneri, Matthew B.; Cumby, Robert E.; Diba, Behzad T. **AA** Canzoneri and Diba: Georgetown University. Cumby: Georgetown University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6471; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 19. **PR** \$5.00. **JE** E31, E42, E52. **KW** Fiscal Dominant. Money Dominant. Fiscal Solvency. Price-Level Determination.
AB A new theory of price determination suggests that if primary surpluses are independent of the level of debt, the price level has to "jump" to assure fiscal solvency. In this regime (which we call Fiscal Dominant), monetary policy has to work through seignorage to control the price level. If on the other hand primary surpluses are expected to respond to the level of debt in a way that assures fiscal solvency (a regime we call Money Dominant), then the price level is determined in more conventional ways. In this paper we develop testable restrictions that differentiate between the two regimes. Using post war data, we present what we think is overwhelming evidence that the United States is in a Money Dominant regime; even the post Reagan data (1980 to 1995) seem to support that contention.

Capilouto, Eli I.

TI Tobacco Taxes, Smoking Restrictions, and Tobacco Use. **AU** Ohsfeldt, Robert L.; Boyle, Raymond G.; Capilouto, Eli I.

Capoen, Fabrice

PD November 1997. **TI** Internal and External Policy Coordination: A Dynamic Analysis. **AU** Capoen, Fabrice; Villa, Pierre. **AA** Capoen: Universite de Caen. Villa: CEPII. **SR** CEPII Working Paper: 97/15; Centre d'Etudes Prospectives et d'Informationes Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 51. **PR** Free. **JE** C78, E10, E40, E58, E63. **KW** Policy Coordination. Perfect Nash Equilibrium. Nash Bargaining. Time Consistency. Exchange Rates.
AB The authors study in a dynamic framework the conflict between government and the central bank with respect to the exchange rate regime, the nature of the expectations of prices and exchange rate regimes (flexible, fixed, EMU), convergence criteria such as the public debt/GDP ratio. The method consists in calculating Perfect Nash Equilibria between authorities and then modeling internal and external coordination by a Dynamic

Nash-Bargaining procedure. This technical article can be read in two different ways. The first is linked to the political economy and history of thought; the second is linked to a normative proposition for the political economy. The authors think that the organization of the EMU cannot avoid coordination problems and cannot avoid justifying the use of budgetary prudential ratios. The contribution of this article is thus normative and methodological. The aim is to study the management of macropolicies by using original modeling.

Card, David

PD April 1998. **TI** The More Things Change: Immigrants and the Children of Immigrants in the 1940's, the 1970's, and the 1990's. **AU** Card, David; DiNardo, John; Estes, Eugena. **AA** Card: University of California, Berkeley and National Bureau of Economic Research. DiNardo: University of California, Irvine and National Bureau of Economic Research. Estes: Princeton University. **SR** National Bureau of Economic Research Working Paper: 6519; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** J11, J31, J61, J62. **KW** Immigrants' Children. Second Generation. Intergenerational Differences. Economic Performance.

AB Rising immigrant inflows have substantially affected the size and composition of the U.S. workforce. They are also exerting an even bigger intergenerational effect: at present one-in-ten native born children are in the "second generation" -- born to immigrant parents. In this paper we present a comparative perspective on the economic performance of immigrants and their children, utilizing data from the 1940 and 1970 Censuses, and from recent (1994-96) Current Population Surveys. We find important intergenerational links between the economic status of immigrant fathers and the economic status and marriage patterns of their native born sons and daughters. Much of this linkage works through education: children of better-educated immigrants have higher education, earn higher wages, and are more likely to marry outside of their father's ethnic group. Despite the dramatic shift in the country-of-origin composition of U.S. immigrants since 1940, we find that the rate of intergenerational assimilation has changed little. As in the past, native born children of immigrants can expect to close 50-60 percent of the gap in relative economic performance experienced by their father's ethnic group.

PD April 1998. **TI** Falling Union Membership and Rising Wage Inequality: What's the Connection? **AA** University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6520; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 20. **PR** $5.00. **JE** D31, J31, J51. **KW** Union Membership. Wage Dispersion. Public Sector. Inequality.

AB This paper presents new evidence on the effects of changing union membership on trends in wage dispersion in the U.S. labor market. I use data from the mid-1970's and early 1990's to compare union membership rates for workers in different deciles of the wage distribution, and to calculate the effects of shifting unionism on wage inequality. Among men, union rates have fallen for most groups, with larger declines among the lowest-wage workers. I estimate that the decline in unions explains 10-20 percent of the rise in male wage inequality over the past 25 years. Among women, union membership has fallen for low-wage workers but risen for high-wage workers, with little change overall. Shifting union patterns have therefore had little effect on female inequality, and may have actually accentuated the rise in inequality. Economy-wide trends in union membership mask a sharp divergence between the private sector, where unions have been declining, and the public sector, where union membership rates have actually risen for most groups. Calculations by sector suggest that unions have been a significant force in forestalling the rise in wage inequality among public sector workers of both genders.

Carlino, Gerald

PD August 1999. **TI** Postwar Trends in Metropolitan Employment Growth: Decentralization and Deconcentration. **AU** Carlino, Gerald; Chatterjee, Satyajit. **AA** Carlino: Federal Reserve Bank of Philadelphia and University of Pennsylvania. Chatterjee: Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/10; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 19. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** R11, R12, R23. **KW** Urban Economics. Employment. Population. Labor Markets. Cities.

AB A key finding to emerge from this study is that the widely studied suburbanization or decentralization of employment and population is only part of the story of postwar urban evolution. Another important part of the story is a postwar trend of relatively faster growth of jobs and people in the smaller and less-dense MSAs (deconcentration). We find that postwar growth in employment (and to a lesser extent population) has favored metropolitan areas with smaller levels of employment (population) as well as metropolitan areas with lower levels of employment (population) density. These trends are shared by major regions of the country and by manufacturing and non-manufacturing employment. The fact that employment growth has favored MSAs with smaller levels of employment (or lower levels of employment density) indicates that economic processes favoring convergent (as opposed to parallel) metropolitan growth played an important role in the postwar era.

Carpenter, Jennifer N.

TI Callable Defaultable Bonds: Valuation, Hedging, and Optimal Exercise Boundaries. **AU** Acharya, Viral V.; Carpenter, Jennifer N.

Carroll, Christopher D.

PD May 1998. **TI** Why do the Rich Save so Much? **AA** John Hopkins University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6549; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 26. **PR** $5.00. **JE** D31, D91, E21, H24. **KW** Lifetime Saving. Saving Rates. Income Distribution. Wealth Accumulation.

AB This paper considers several alternative explanations for the fact that households with higher levels of lifetime income ('the rich') have higher lifetime saving rates (Dynan, Skinner, and Zeldes (1996); Lillard and Karoly (1997)). The paper argues that the saving behavior of the richest households cannot be explained by models in which the only purpose of wealth accumulation is to finance future consumption, either their own or that of heirs. The paper concludes that the simplest model that explains the relevant facts is one in which either consumers regard the accumulation of wealth as an end in itself, or unspent wealth yields a flow of services (such as power or social status) which have the same practical effect on behavior as if wealth were intrinsically desirable.

PD May 1998. **TI** Does Cultural Origin Affect Saving Behavior? Evidence from Immigrants. **AU** Carroll, Christopher D.; Rhee, Byung-Kun; Rhee, Changyong. **AA** Caroll: John Hopkins University and and National Bureau of Economic Research. Rhee, B: Kyungsan University. Rhee, C.: Seoul National University. **SR** National Bureau of Economic Research Working Paper: 6568; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D80, D91, E21, E30, J61. **KW** Saving. Immigrants. Culture.
AB Because efforts to explain international saving differentials using traditional economic variables have not been very successful (Bosworth, 1993), some economists have proposed that national saving differences reflect cultural differences. We attempt to test that hypothesis by using data from the U.S. Census to examine whether immigrants to the U.S. from high-saving countries tend to save more than immigrants from low-saving countries. While we do find highly statistically significant differences in immigrants' saving behavior by country of origin, those differences do not match up with the differences in national saving rates. In particular, immigrants from high-saving Asian countries do not save more than other immigrants.

PD April 1999. **TI** Unemployment Risk and Precautionary Wealth: Evidence from Households' Balance Sheets. **AU** Carroll, Christopher D.; Dynan, Karen E.; Krane, Spencer D. **AA** Carroll: Johns Hopkins University. Dynan and Krane: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/15; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 39. **PR** no charge. **JE** D91, E21, E24. **KW** Precautionary Saving. Unemployment. Net Worth. Permanent Income. Wealth.
AB Recent empirical work on the strength of precautionary saving has yielded widely varying conclusions. The mixed findings may reflect a number of difficulties in proxying uncertainty, executing instrumental variables estimation, and incorporating theoretical restrictions into empirical models. For each of these problems, this paper uses existing best-practice techniques and some new strategies to relate unemployment probabilities from the Current Population Survey to net worth data from the Survey of Consumer Finances. We find that increases in unemployment risk do not boost saving by households with relatively low permanent income, but that a statistically significant precautionary effect emerges for households at a moderate level of income. This finding is robust to certain restrictions on the sample, but not robust across measures of wealth: We generally find a significant precautionary motive in broad measures of wealth that include home equity, but not in narrower subaggregates comprising only financial assets and liabilities.

Carroll, Robert

PD May 1998. **TI** Income Taxes and Entrepreneurs' Use of Labor. **AU** Carroll, Robert; Holtz-Eakin, Douglas; Rider, Mark; Rosen, Harvey S. **AA** Carroll and Rider: Office of Tax Analysis. Holtz-Eakin: Syracuse University and and National Bureau of Economic Research. Rosen: Princeton University and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6578; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 25. **PR** $5.00. **JE** H32, J23, J31. **KW** Income Taxes. Employment. Wages. Entrepreneurs.
AB This paper investigates the effect of entrepreneurs' personal income tax situations on their use of labor. We analyze the income tax returns of a large number of sole proprietors before and after the Tax Reform Act of 1986 and determine how the substantial reductions in marginal tax rates associated with that law affected their decisions to hire labor and the size of their wage bills. We find that individual income taxes exert a statistically and quantitatively significant influence on the probability that an entrepreneur hires workers. Raising the entrepreneur's "tax prices" (one minus the marginal tax rate) by 10 percent raises the mean probability of hiring workers by about 12 percent. Further, conditional on hiring employees, taxes also influence the total wage payments to those workers. The elasticity of the median wage bill with respect to the tax price is about 0.37.

Carvalho De Souza, Cid

TI Scheduling Projects with Labor Constraints. **AU** Cavalcante, Crisitna C. B.; Carvalho De Souza, Cid; Savelsbergh, Martin W. P.; Wang, Yaoguang; Wolsey, Laurence A.

TI Scheduling Projects with Labor Constraints. **AU** Cavalcante, Crisitna C. B.; Carvalho De Souza, Cid; Savelsbergh, Martin W. P.; Wang, Yaoguang; Wolsey, Laurence A.

Casamatta, Georges

PD October 1999. **TI** The Political Economy of Social Security. **AU** Casamatta, Georges; Cremer, Helmuth; Pestieau, Pierre. **AA** Casamatta: Universite de Liege and Universite de Toulouse. Cremer: GREMAQ and IDEA, Universite de Toulouse and Institut Universitaire de France. Pestieau: Universite de Liege, Universite Catholique de Louvain and DELTA, Paris, France. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9955; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 21. **PR** $100 per year. **JE** D90, H55, J26, O41. **KW** Social Security. Majority Voting. Pay-As-You-Go. Interest Rates.
AB We consider a two-period overlapping generations model in which individual voters differ not only according to age but also productivity. In such a setting, a (re-distributive) Pay-As-You-Go system is politically sustainable, even when the interest rate is larger than the rate of population growth. The medium wage workers (not the lowest) join the retirees to form a majority and vote for a positive level of social security. This level depends on the difference between population growth and interest rate and on the re-distributiveness on the benefit rule.

Cashin, Paul

PD May 1999. **TI** Spend Now, Pay Later? Tax Smoothing and Fiscal Sustainability in South Asia. **AU** Cashin, Paul; Haque, Nadeem; Olekalns, Nilss. **AA** Cashin and Haque: International Monetary Fund. Olekalns: University of Melbourne. **SR** International Monetary Fund Working Paper: WP/99/63; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 31. **PR** not available. **JE** E62, H21, H62, O23. **KW** Tax Smoothing. Tax Tilting. Fiscal Sustainability. Pakistan. Sri Lanka.

AB This paper tests a version of Barro's tax-smoothing model, which assumes intertemporal optimization by a government seeking to minimize the distortionary costs of taxation, using Pakistan and Sri Lanka data for 1956-95 and 1964-97, respectively. The empirical results indicate that Pakistan's fiscal behavior is consistent with tax smoothing, but not Sri Lanka's. Moreover, fiscal behavior in both countries was dominated by a stagnation of revenues, large tax-tilting-induced deficits, and the consequent accumulation of excessive public liabilities. Analysis of the time-series characteristics of tax-tilting behavior indicates that for both countries the stock of public liabilities is unsustainable under unchanged fiscal policies.

PD June 1999. **TI** How Persistent are Shocks to World Commodity Prices? **AU** Cashin, Paul; Liang, Hong; McDermott, C. John. **AA** Cashin and Liang: International Monetary Fund. McDermott: Reserve Bank of New Zealand. **SR** International Monetary Fund Working Paper: WP/99/80; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 50. **PR** not available. **JE** C22, O13, O19, Q11, Q17. **KW** Commodity Prices. Median-Unbiased Estimation. Shock Persistence. Price Stabilization.

AB This paper examines the persistence of shocks to world commodity prices, using monthly IMF data on primary commodities between 1957-98. We find that shocks to commodity prices are typically long lasting and the variability of the persistence of price shocks is quite wide. The paper also discusses the implications of these findings for national and international schemes to stabilize earnings from commodity exports and finds that if price shocks are long-lived, then the cost of stabilization schemes will likely exceed any associated smoothing benefits.

Cavalcante, Crisitna C. B.

PD November 1998. **TI** Scheduling Projects with Labor Constraints. **AU** Cavalcante, Crisitna C. B.; Carvalho De Souza, Cid; Savelsbergh, Martin W. P.; Wang, Yaoguang; Wolsey, Laurence A. **AA** Cavalcante: Universidade Estadual de Campinas. Carvalho De Souza: Georgia Institute of Technology. Wang: Navigation Technologies. Wolsey: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9859; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 24. **PR** $100 per year. **JE** C61, C63, C67, D24. **KW** Project Scheduling. Labor Constraints. Integer Programming. Tabu Search.

AB This paper considers a labor constrained scheduling problem (LCSP) which is a simplification of a practical problem arising in industry. Jobs are subject to precedence constraints and specified processing times. The labor requirement varies as the job is processed. Given the labor available per period, the problem is to finish all the jobs as soon as possible, that is, to minimize makespan, subject to the precedence and labor constraints. Several Integer Programming (IP) formulations for this problem are discussed and valid inequalities for these different models are introduced. A major drawback to the IP approach is the weakness of the lower bound relaxations. However, computational experiments show how the solution of the linear relaxation of the IP models can be used to provide good schedules. Solutions arising from these LP-based heuristics are considerably improved by local search procedures. The authors further exploit the capabilities of local search for LCSP by designing a Tabu Search algorithm. Computational experiments on a benchmark data set show that the Tabu algorithm generates the best known upper bounds in almost all instances. Also, IP can be used to provide reasonably good lower bounds for LCSP when the makespan is replaced by suitably modified objective functions.

Cavalluzzo, Ken

PD April 1999. **TI** Competition, Small Business Financing, and Discrimination: Evidence from a New Survey. **AU** Cavalluzzo, Ken; Cavalluzzo, Linda; Wolken, John D. **AA** Cavalluzzo K.: Georgetown University. Cavalluzzo L.: Center for Naval Analyses. Wolken: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/25; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 100. **PR** no charge. **JE** D40, G21, J10, J71. **KW** Discrimination. Small Business. Market Structure. Corporate Finance. Credit Markets.

AB Using data from the 1993 National Survey of Small Business Finances, the authors examine some of the factors influencing differences in small business credit market experiences across demographic groups. They analyze credit applications, loan denials, and interest rates paid across gender, race and ethnicity of small business owners. In addition, they analyze data gathered from small business owners who said they did not apply for credit because they believed that their application would have been turned down. This set of analyses, in combination with important new information, helps to understand better the sources of observed differentials in the credit market experiences of small business operators across demographic groups. Credit market experiences often differ markedly among demographic groups. However, so do the characteristics of firms and owners. Results of the multivariate analyses show that many of the factors considered help to explain the observed differences in credit market experiences.

Cavalluzzo, Linda

TI Competition, Small Business Financing, and Discrimination: Evidence from a New Survey. **AU** Cavalluzzo, Ken; Cavalluzzo, Linda; Wolken, John D.

Chade, Hector

PD November 1998. **TI** Taxes and Marriage: A Two-Sided Search Analysis. **AU** Chade, Hector; Ventura, Gustavo. **AA** Chade: Arizona State University. Ventura: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF

Reports: 9822; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 19. **PR** $10.00 Canadian per paper. **JE** D10, H23, H24, J12. **KW** Marriage Tax. Two-Sided Search. Taxation.

AB This paper analyzes the effects that differential tax treatment of married and single individuals has on marriage behavior, using a version of the two-sided search model of Burdett-Wright (1998). The main results are the following: 1) an increase in the "marriage tax" reduces the number of marriages: 2) an indirect strategic effect due to two-sided search considerations mitigates the impact that changes in the "marriage tax" have on marriage formation: 3) the quantitative analysis of the model indicates that, in the U.S., large increases in the "marriage tax" are associated with small changes in the number of marriages.

Chaloupka, Frank J.

PD April 1998. **TI** An Examination of Gender and Race Differences in Youth Smoking Responsiveness to Price and Tobacco Control Policies. **AU** Chaloupka, Frank J.; Pacula, Rosalie Liccardo. **AA** Chaloupka: University of Illinois, Chicago and National Bureau of Economic Research. Pacula: University of San Diego and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6541; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 9. **PR** $5.00. **JE** D12, J15, J16, L66. **KW** Smoking Behavior. Tobacco Policies. Race and Gender. Price Elasticity.

AB Nationally representative studies consistently report significant gender and racial differences in youth smoking rates, although little research has been done to explain why. In this paper we examine one possible source for this variation: differences in youth responsiveness to changes in price or tobacco control policies. Using data from the 1992-1994 Monitoring the Future surveys, we find that young men are much more responsive to changes in the price of cigarettes than young women. The participation elasticity for men is almost twice as large as that for women. Further, we find that smoking rates of young black men are significantly more responsive to changes in price than young white men. In addition, we find significant differences in responsiveness to particular tobacco control policies. Smoking rates among white youths are responsive to anti-tobacco activities and clean indoor air restrictions, while smoking rates among black youths are significantly influenced by smoker protection laws and restrictions on youth access.

Chander, Parkash

PD January 1999. **TI** International Treaties on Trade and Global Pollution. **AU** Chander, Parkash; Khan, Ali. **AA** Chander: John Hopkins University and Universite Catholique de Louvain. Khan: John Hopkins University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9903; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 15. **PR** $100 per year. **JE** F13, F15, Q25, Q28. **KW** Pollution Intensity. Free Trade. Emissions Trade. First-Best Treaty.

AB The paper shows that global pollution need not rise under free trade in goods and/or emissions even in the complete absence of income effects. Differences in environmental concerns across the countries lead to differences in the pollution-intensity of production and thus generate the possibility of increasing world output and income without increasing the world pollution by shifting the production of the polluting good from the country with higher pollution-intensity of production to the country with lower one. We show that free trade in goods and/or emissions can induce precisely such a shifting of production with the country with greater environmental concern exporting the polluting good. The paper also demonstrates the possibility of a first-best international treaty on global pollution in which each country or group of countries is better-off.

PD May 1999. **TI** The Kyoto Protocol: An Economic and Game Theoretic Interpretation. **AU** Chander, Parkash; Tulkens, Henry; Van Ypersele, Jean-Pascal; Willems, Stephane. **AA** Chander: Indian Statistical Institute, New Delhi and Universite Catholique de Louvain. Tulkens and Van Ypersele: Universite Catholique de Louvain. Willems: Bureau federal du Plan, Brussels. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9925; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 21. **PR** $100 per year. **JE** C72, D72, Q25, Q28. **KW** Kyoto Protocol. Climate Change. Coalition Stability. Emission Quotas.

AB Calling upon both positive and normative economics, this paper attempts to characterize the issues at stake in the current international negotiations on climatic change. Section 2 reviews the main features of the Protocol. By means of an elementary economic model, Section 3 identifies the main concepts involved: optimality, non- cooperation, coalitional stability. Section 4 illustrates that "business-as-usual", "no regrets" and other domestic policies are alternative ways to conceive of the non-cooperative equilibrium prevailing before the negotiations. Data suggest that the prevailing situation exhibits characteristics of several of these policies. Section 5 interprets the Protocol. While there is no firm basis to assert that the emission quotas chosen at Kyoto correspond to optimal emissions (although they are a step in the right direction), economic and game theoretical arguments support the view that for achieving these emission quotas, trading ensures efficiency, as well as coalitional stability for the agreement, provided it is adopted worldwide. Finally, Section 6 argues that beyond the Kyoto Protocol, the achievement of coalitionally stable optimality at the world level is a real possibility with trading, provided agreement can be reached in the future as to appropriate reference emission levels, in particular as far as developing countries are concerned.

Chang, Howard F.

TI The Effect of Offer-of-Settlement Rules on the Terms of Settlement. **AU** Bebchuk, Lucian Arye; Chang, Howard F.

Chang, Isaac J.

PD April 1999. **TI** Glucksman Fellowship Program Student Research Reports. **AU** Chang, Isaac J.; Kapusta, Matthew C.; McKenna, Mark R. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/19; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 60. **PR** $5.00 each; $100.00 yearly subscription. **JE** F31, G11, G12, G14, G34. **KW** Value at Risk. Foreign Exchange. Mutual Funds. Divestiture. Corporate Restructuring.

AB The Glucksman Institute for Research in Securities Markets awards fellowships each year to outstanding second year Stern MBA students to work on independent research projects under a faculty member's supervision. Three research projects completed by 1998-99 Glucksman Fellows are included in this special issue of the Salomon Center Working Paper Series. These papers focus on three important topics in finance. Isaac Chang, under the supervision of Kenneth Garbade and Andreas Weigand, proposes a new method of estimating Value at Risk (VaR) and applies it to the foreign exchange market; Matthew Kapusta, under the supervision of Stephen Brown, studies how mutual fund performance is influenced by varying degrees of market efficiency; Mark McKenna, under the supervision of David Yermack, discusses the various methods of divestiture used in corporate restructurings. Each of these papers, reflecting the research effort of three outstanding Stern MBA students, is summarized in the Table of Contents.

Chang, Roberto

PD March 1998. **TI** Financial Fragility and the Exchange Rate Regime. **AU** Chang, Roberto; Velasco, Andres. **AA** Change: Federal Reserve Bank of Atlanta. Velasco: New York University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6469; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 35. **PR** $5.00. **JE** E52, E58, F31, G21. **KW** Exchange-Rate Regimes. Currency Boards. Bank Runs. Exchange-Rate Crises. Social Welfare.

AB We study financial fragility, exchange rate crises and monetary policy in an open economy model in which banks are maturity transformers as in Diamond-Dybvig. The banking system, the exchange rate regime, and central bank credit policy are seen as parts of a mechanism intended to maximize social welfare; if the mechanism fails, banking crises and speculative attacks become possible. We compare currency boards, fixed rate and flexible rates, with and without a lender of last resort. A currency board cannot implement a socially optimal allocation; in addition, under a currency board bank runs are possible. A fixed exchange rate system may implement the social optimum but is more prone to bank runs and exchange rate crises than a currency board. Larger capital inflows enhance welfare if the no-run equilibrium occurs, but may also render the economy more vulnerable to self-fulfilling runs. A flexible exchange rate system implements the social optimum and eliminates runs, provided the exchange rate and central bank lending policies of the central bank are appropriately designed.

PD June 1998. **TI** Financial Crises in Emerging Markets: A Canonical Model. **AU** Chang, Roberto; Velasco, Andres. **AA** Chang: Federal Reserve Bank of Atlanta. Velasco: New York University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6606; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 41. **PR** $5.00. **JE** E58, F31, F32, F34, G21. **KW** Emerging Markets. Financial Crises. Liquidity. Banking. Central Banks.

AB We present a simple model that can account for the main features of recent financial crises in emerging markets. The international illiquidity of the domestic financial system is at the center of the problem. Illiquid banks are a necessary and a sufficient condition for financial crises to occur. Domestic financial liberalization and capital flows from abroad (especially if short term) can aggravate the illiquidity of banks and increase their vulnerability to exogenous shocks and shifts in expectations. A bank collapse multiplies the harmful effects of an initial shock, as a credit squeeze and costly liquidation of investment projects cause real output drops and collapses in asset prices. Under fixed exchange rates, a run on banks becomes a run on the currency if the Central Bank attempts to act as a lender of last resort.

Charap, Joshua

PD July 1999. **TI** Institutionalized Corruption and the Kleptocratic State. **AU** Charap, Joshua; Harm, Christian. **AA** Charap: International Monetary Fund. Harm: University of Muenster. **SR** International Monetary Fund Working Paper: WP/99/91; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 20. **PR** not available. **JE** D72, D73, D74, H56, O17. **KW** Corruption. Dictatorship. Anarchy. Governance. Political Structures.

AB This paper argues that corruption patterns are endogenous to political structures. Thus, corruption can be systematic and planned rather than decentralized and coincidental. In an economic system without law or property rights, a kleptocratic state may arise as a predatory hierarchy from a state of pure anarchy. A dictator minimizes the probability of a palace revolution by creating a system of patronage and loyalty through corrupt bureaucracy. Competitive corruption patterns are associated with anarchy and weak dictators, while strong dictators implement a system of monopolistic corruption. Efforts at public sector reform may meet resistance in countries featuring such systematic corruption.

Chatterjee, Satyajit

PD March 1999. **TI** A Welfare Comparison of Pre- and Post-WWII Business Cycles: Some Implications For The Role of Postwar Macroeconomic Policies. **AU** Chatterjee, Satyajit; Corbae, Dean. **AA** Chatterjee: Federal Reserve Bank of Philadelphia. Corbae: University of Pittsburgh. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/02; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 37. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** E24, E31, E32, N11, N12. **KW** Macroeconomic Policy. Business Cycles. Price Level. Unemployment. Economic History.

AB The authors compute the potential economic benefits that would accrue to a typical pre-WWII era U.S. worker from the post-WWII macroeconomic policy regime. The worker's average utility is computed for two eras: pre-WWII (1875-1941) and post-WWII. In pre-WWII era, the worker endured business cycles that were large in amplitude and quite volatile, a procyclical aggregate price level with large cyclical amplitude, a high average unemployment rate, and virtually no trend in the aggregate price level. In post-WWII era, the same worker would have encountered business cycles with smaller

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

amplitude and less volatility, a counter-cyclical aggregate price level with small cyclical amplitude, a much lower mean unemployment rate, and a positive trend in the aggregate price level. Depending on assumptions about the effects of macroeconomic policies on the mean and variance of the unemployment rate, the potential gain in the worker's welfare ranges between -0.9 to 4.19 percent of consumption.

TI Postwar Trends in Metropolitan Employment Growth: Decentralization and Deconcentration. **AU** Carlino, Gerald; Chatterjee, Satyajit.

PD November 1999. **TI** Competitive Theories for Economies With General Transactions Technology. **AU** Chatterjee, Satyajit; Corbae, Dean. **AA** Chatterjee: Federal Reserve Bank of Philadelphia. Corbae: University of Pittsburgh. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/18; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 17. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** D23, D51. **KW** Transactions Costs. General Equilibrium. Commodity Space.

AB In this paper, we describe and compare two approaches to analyzing transactions costs in a general equilibrium setting. In the first approach, which we label the transaction costs approach, the commodity space is the same as that used in models without transactions costs. In the second approach, which we label the valuation equilibrium approach, the commodity space is chosen so that the exchange problem can be formulated as an instance of the abstract exchange model described in Debreu (1954). We argue that the valuation equilibrium approach provides a tractable framework for quantitative studies of the effects of transactions costs on economy-wide resource allocation.

Chatterji, Shurojit

TI Dictatorial Domains. **AU** Aswal, Navin; Chatterji, Shurojit; Sen, Arunava.

Chattopadhyay, Subir

PD April 1999. **TI** Stochastic OLG Models, Market Structure, and Optimality. **AU** Chattopadhyay, Subir; Gottardi, Piero. **AA** Chattopadhyay: Universidad de Alicante. Gottardi: Universita' di Venezia and Brown University. **SR** Brown University Department of Economics Working Paper: 99/12; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 41. **PR** no charge. **JE** D51, D52, D61. **KW** Overlapping Generations. Uncertainty. Pareto Optimality. General Equilibrium.

AB For a general class of pure exchange OLG economies under uncertainty, we provide a complete characterization of the efficiency properties of competitive equilibria when markets are only sequentially complete and the criterion of efficiency is conditional Pareto optimality. We also consider a particular case in which markets fail to be even sequentially complete and provide a characterization when the criterion of efficiency is weakened to ex post Pareto optimality.

Chesher, Andrew

PD June 1999. **TI** Bartlett Identities Tests. **AU** Chesher, Andrew; Dhaene, Geert; Gourieroux, Christian; Scaillet, Oliver. **AA** Chesher: University of Bristol. Dhaene: Universite de mons-Hainaut, and Universite Catholique de Louvain. Gourieroux: CREST, CEPREMAP. Scaillet: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9939; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 19. **PR** $100 per year. **JE** C12, C52. **KW** Bartlett Identities. Information Matrix. Specification Test. Score Test.

AB In this note we propose a general testing procedure for parametric models based on Bartlett Identities. A well-known example is the Information Matrix test, which is based on the Bartlett Identity of order 1. The Identities are shown to induce a sequence of testable restrictions on the data generating process. When all the restrictions are considered jointly, they are often complete, in the sense that they are satisfied if and only if the model is correctly specified. We show that this is the case for normal, exponential and Poisson models. A test of the joint validity of an arbitrarily chosen subset of restrictions is proposed, and its first order asymptotic properties are presented. An interpretation of the test as a score test for neglected parameter heterogeneity is also given.

Chia, Ngee-Choon

PD November 1998. **TI** Motor Vehicle Taxes as Environmental Instruments: The Case of Singapore. **AA** National University of Singapore and University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9820; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 29. **PR** $10.00 Canadian per paper. **JE** D62, H21, H23, H24, R40. **KW** Congestion Externality. Double Dividend. Environment. Motor Vehicle Taxes. Taxation.

AB With small geographic size, land scarcity poses a potential constraint for economic growth in Singapore. Restraining car ownership and car use through motor vehicle taxes is part of the land-transport policy to ensure smoother traffic flow. The scale and scope of the motor vehicle taxes used have implications on government revenue and the environment. This paper analyzes the use of motor vehicle taxes as environmental instruments. It compares the effectiveness of ownership versus use tax as tools to internalize congestion externality. Economic issues arising from motor vehicle taxes are also highlighted. It concludes that motor vehicle taxes offer Singapore a double dividend.

Chinn, Menzie D.

PD April 1998. **TI** Before the Fall: Were East Asian Currencies Overvalued? **AA** University of California, Santa Cruz and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6491; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** F31, F41, F47. **KW** PPP. Currency Overvaluation. Foreign Exchange. Monetary Models.

AB The paper implements two major approaches to identifying the equilibrium exchange rate. First, the concept of purchasing power parity (PPP) is tested and used to define the equilibrium real exchange rate for the Indonesian rupiah, Korean won, Malaysian ringgit, Philippine peso, Singapore dollar, Taiwanese dollar and the Thai bhat. The calculated PPP rates are then used to evaluate whether these seven East Asian currencies were overvalued. The purchasing power parity calculations are performed on broad price indices, price indices of tradable goods, and price indices of export goods using the Johansen and Horvath-Watson cointegration test procedures. As of May 1997, the bhat, ringgit and peso were overvalued according to this criterion. While the overvaluations are not large, they do appear to be persistent. Robustness checks for sensitivity to deflator, sample period, and numeraire currency are undertaken. Second, the paper calculates the implied equilibrium rates from a monetary model augmented by a proxy variable for productivity trends. The monetary models imply less substantial deviations from equilibrium. Furthermore, the results do not closely correspond to those obtained from the PPP calculations. Interestingly, both methods indicate that the Korean won was undervalued even before its recent discrete drop in value.

TI The Current Account and the Real Exchange Rate: A Structural VAR Analysis of Major Currencies. **AU** Lee, Jaewoo; Chinn, Menzie D.

Chipty, Tasneem

PD April 1998. **TI** Effects of Information Provision in a Vertically Differentiated Market. **AU** Chipty, Tasneem; Witte, Ann Dryden. **AA** Chipty: Ohio State University. Witte: Florida International University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6493; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 23. **PR** $5.00. **JE** J13, K39, L15, L51. **KW** Information Provision. Price Distribution. Child Care. Product Quality.

AB This paper studies the effects of consumer information on equilibrium market prices and observable product quality. Child care markets offer a unique opportunity to study these effects because of the existence of resource and referral agencies (R&R's) in some markets. R&R's provide consumers with information on availability, price, and observable characteristics of care. Using a model of vertical differentiation, the authors show conditions under which increased consumer information reduces price dispersion, maximum price, and average price. They then examine empirically the effects of R&R's on the distribution of child care prices and the distribution of staff-child ratios. Separate models are estimated for the distribution of prices and staff-child ratios for infants, toddlers, preschoolers and school age children because of regulatory and care differences across age groups. R&R's are found to have economically large and statistically significant effects on the distribution of prices for the care of infants and toddlers. Geographic markets with R&R's are shown to have significantly less price dispersion and lower maximum prices. Evidence for lower average prices is weaker. R&R's show no significant effects on staff-child ratios. These findings are generally consistent with search theory and support the contention that information provision can intensify price competition.

Christian, Charles

TI The Determinants of Income Tax Compliance: Evidence from a Controlled Experiment in Minnesota. **AU** Blumenthal, Marsha; Christian, Charles; Slemrod, Joel.

Christoffersen, Peter

PD July 1999. **TI** How Relevant is Volatility Forecasting for Financial Risk. **AU** Christoffersen, Peter; Diebold, Francis X. **AA** Christoffersen: McGill University. Diebold: New York University, University of Pennsylvania and National Bureau of Economic Research. **SR** New York University, Salomon Center Working Paper: S/99/26; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 22. **PR** $5.00 each; $100.00 yearly subscription. **JE** C53, G11, G12. **KW** Volatility Forecasts. Risk Management.

AB It depends. If volatility fluctuates in a forecastable way, then volatility forecasts are useful for risk management; hence the interest in volatility forecastability in the risk management literature. Volatility forecastability, however, varies with horizon, and different horizons are relevant in different applications. Moreover, existing assessments of volatility forecastability are plagued by the fact that they are joint assessments of volatility forecastability and an assumed model, and the results can vary not only with the horizon, but also with the assumed model. To address the problem, we develop a model-free procedure for assessing volatility forecastability across horizons. Perhaps surprisingly, we find that volatility forecastability decays quickly with horizon. Volatility forecastability, although clearly of relevance for risk management at the short horizons relevant for, say, trading desk management, may be much less important at longer horizons.

Chung, Sukkyun

TI Productivity and the Decision to Export: Micro Evidence from Taiwan and South Korea. **AU** Aw, Bee Yan; Chung, Sukkyun; Roberts, Mark J.

Clements, Benedict

TI Military Spending, the Peace Dividend, and Fiscal Adjustment. **AU** Davoodi, Hamid; Clements, Benedict; Schiff, Jerald; Debaere, Peter.

Cockburn, Iain M.

PD May 1998. **TI** Hedonic Analysis of Arthritis Drugs. **AU** Cockburn, Iain M.; Anis, Aslam H. **AA** Cockburn: University of British Columbia and and National Bureau of Economic Research. Anis: St. Paul's Hospital. **SR** National Bureau of Economic Research Working Paper: 6574; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 19. **PR** $5.00. **JE** I11, I12, L15, L51, L65. **KW** Health Care. Rheumatoid Arthritis. Pharmaceuticals.

AB We examine the relationship between "quality" and market outcomes for a group of drugs used to treat rheumatoid arthritis. Though this is a widespread and debilitating disease with very substantial impacts on the health of patients and on the economy, currently available drugs have limited efficacy and serious side effects. Clinical research conducted since these products were approved has resulted in substantial revisions to the body of scientific information available to physicians. The relative "quality" of these drugs (as captured by efficacy and toxicity measurements reported in peer-reviewed clinical trials) has changed markedly over the past 15 years. Yet in our analysis of U.S. wholesale prices we find that relative prices appear to be only weakly related to quality. We do however find a relationship between changes in reported efficacy and toxicity and the evolution of quantity shares in this market.

Cohen, Darrel

PD June 1999. **TI** An Analysis of Government Spending in the Frequency Domain. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/26; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 31. **PR** no charge. **JE** E32, E62, H30, H50, J65. **KW** Government Spending. Spectral Analysis. Defense Spending. Unemployment Insurance. Consumption.

AB This paper utilizes frequency-domain techniques to identify and characterize economically important properties of government spending. Using post-war data for the United States, the paper first identifies peaks in the estimated spectra of the major components of fiscal spending. Second, the paper examines the relationship between these fiscal variables and various measures of aggregate economic activity. The analysis reveals that defense spending is best modeled as exogenous with respect to the aggregate economy and that nondefense spending (growth) appears to be white noise. Further, the unemployment rate has a very high coherency at the business cycle frequencies with unemployment insurance but far smaller coherency with other transfer payments. Finally, the paper finds a moderate degree of direct substitutability between certain types of government spending and private consumption and in the process illustrates how spectral techniques can be readily combined with a standard intertemporal optimizing model.

Collier, Paul

TI Adjustment Costs, Irreversibility and Investment Patterns in African Manufacturing. **AU** Bigsten, Arne; Collier, Paul; Dercon, Stefan; Fafchamps, Marcel; Gauthier, Bernard; Gunning, Jan Willem; Oduro, Abena; Oostendorp, Remco; Pattillo, Catherine; Soderbom, Mans; Teal, Francis; Zeufack, Albert.

Cook, Cynthia R.

TI The Institutional Context and Manufacturing Performance: The Case of the U.S. Defense Industrial Network. **AU** Kelley, Maryellen R.; Cook, Cynthia R.

Corbae, Dean

TI A Welfare Comparison of Pre- and Post-WWII Business Cycles: Some Implications For The Role of Postwar Macroeconomic Policies. **AU** Chatterjee, Satyajit; Corbae, Dean.

TI Competitive Theories for Economies With General Transactions Technology. **AU** Chatterjee, Satyajit; Corbae, Dean.

Cordella, Tito

PD August 1999. **TI** Bank Bailouts: Moral Hazard vs. Value Effect. **AU** Cordella, Tito; Yeyati, Eduardo Levy. **AA** Cordella: International Monetary Fund. Yeyati: Universidad Torcuato di Tella. **SR** International Monetary Fund Working Paper: WP/99/106; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 28. **PR** not available. **JE** D82, E44, E58, G21. **KW** Banking. Bailouts. Last Resort Lender. Value Effect. Moral Hazard.

AB This paper shows that a central bank, by announcing and committing ex-ante to a bailout policy that is contingent on the realization of certain states of nature (for example on the occurrence of an adverse macroeconomic shock), creates a risk-reducing "value effect" that more than outweighs the moral hazard component of such a policy.

Cortes, Olivier

PD April 1997. **TI** Quel est l'Impact du Commerce Exterieur sur la Productivite et L'Emploi? Une Analyse Comparee des cas de la France, de l'Allemagne et des Etats-Unis. **AU** Cortes, Olivier; Jean, Sebastien. **AA** CEPII. **SR** CEPII Working Paper: 97/08; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 88. **PR** Free. **JE** F11, F12, F14, J24, O33. **KW** Productivity. International Trade. Technological Progress. Labor Skill.

AB The labor markets in industrialized countries have been experiencing an increase in disparities for two decades, in terms of employment or wages. Two possible explanations for this evolution appear as especially serious: technical progress and international trade. The economic literature usually considers the impact of trade on labor markets as an essentially intersectoral phenomenon, e.g. North-South trade would hurt unskilled labor intensive industries in industrialized countries. Empirical estimates of these intersectoral effects lead to modest results. Such calculations suffer from two important problems, however, which imply that trade intensification induces, in the industries concerned, an increase in labor productivity, and possibly in labor skills. Testing the link between trade and productivity is therefore very important. The econometric estimates presented were carried out on cross-sectional, medium term sectoral data for France, Germany and the United States. They test for the influence of trade on productivity, and on skill-levels within industrial sectors.

Costa, Dora L.

PD April 1998. **TI** The Wage and the Length of the Work Day: From the 1890's to 1991. **AA** Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6504; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D31, J22, N30. **KW** Hours of Work. Wages. Labor Supply. Earnings Distribution.

AB This paper investigates how the relationship between the wage and the length of the work day has changed since the 1890's among prime-aged adults. Across wage deciles, within wage deciles, and within industry and occupation groups the most highly paid worked fewer hours than the lowest paid in the 1890's, but by 1973 differences in hours worked were small and by 1991 the highest paid worked the longest day. Changing labor supply elasticities explain the compression in the distribution of the length of the work day. In the 1890's the labor supply curve was strongly backwards bending, perhaps because men preferred to smooth hours over their work lives rather than bunch them as they do today. In fact, the intertemporal elasticity of substitution was slightly negative in the 1890's, but by 1973 was positive. The paper shows that the unequal distribution of work hours in the past equalized income, but that between 1973 and 1991 it magnified weekly earnings inequality, accounting for 26 percent of earnings inequality between the top and bottom declines among men, more than all of the earnings inequality among women, and 17 percent of the increase in total household earnings inequality among husband and wife households.

Coudert, Virginie

TI Interest Rates in East Asia Countries: Internal Financial Structures and International Linkages. **AU** Bensidoun, Isabelle; Coudert, Virginie; Nayman, Laurence.

TI Why the Euro Will Be Strong: An Approach Based on Equilibrium Exchange Rates. **AU** Aglietta, Michel; Baulant, Camille; Coudert, Virginie.

Covitz, Daniel M.

TI Why Are Bank Profits So Persistent? The Roles of Product Market Competition, Informational Opacity, and Regional/Macroeconomic Shocks. **AU** Berger, Allen N.; Bonime, Seth D.; Covitz, Daniel M.; Hancock, Diana.

PD July 1999. **TI** Monitoring, Moral Hazard, and Market Power: A Model of Bank Lending. **AU** Covitz, Daniel M.; Heitfield, Erik. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/37; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 26. **PR** no charge. **JE** D82, G21, G28, L14, L16. **KW** Banking. Deposit Insurance. Moral Hazard. Bank Risk. Interest Rates.

AB We model the relationship between market power and both loan interest rates and bank risk without placing strong restrictions on the moral hazard problems between borrowers and banks, and between banks and a government guarantor. Our results suggest that these relationships hinge on intuitive parameterizations of the overlapping moral hazard problems. Surprisingly, for lending markets with a high degree of borrower moral hazard, but limited bank moral hazard, we find that banks with market power charge lower interest rates than competitive banks. We also find that competition makes banking industry risk highly sensitive to macroeconomic fluctuations by making banks more vulnerable to borrower moral hazard. This finding offers an explanation for the dramatic rise and subsequent decline in bank failure rates during the 1980's and 1990's.

Crafts, N. F. R.

TI Productivity Growth during the First Industrial Revolution: Inferences from the Pattern of British External Trade. **AU** Harley, C. Knick; Crafts, N. F. R.

Craine, Rogers

TI Valuing the Futures Market Clearinghouse's Default Exposure During the 1987 Crash. **AU** Bates, David; Craine, Rogers.

Crama, Yves

PD July 1999. **TI** Corporate Governance Structures, Control and Performance in European Markets: A Tale of Two Systems. **AU** Crama, Yves; Leruth, Luc; Renneboog, Luc; Urbain, Jean-Pierre. **AA** Crama: University of Liege. Leruth: University of Liege and Universite Catholique de Louvain. Renneboog: Tilburg University. Urbain: University of Masstricht. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9942; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 12. **PR** $100 per year. **JE** G10, G32, G34. **KW** Corporate Governance. Voting Rights. Shareholders Coalitions. Corporate Performance.

AB Traditionally share price returns and variance have been explained by factors linked to company operations such as systematic risk, corporate size and P/E ratios or by factors related to the influence of the macroeconomic environment. The institutional environment, in terms of concentration and nature of voting rights, bank debt dependence and corporate and legal mechanisms to change control, has rarely been included. The authors define a theoretically well-grounded measure of corporate control applicable to all systems. The impact of ownership structure on the share price performance and corporate risk is empirically analyzed for London Stock Exchange companies. The UK is particularly interesting because of its widely held nature and the liquidity of the market for controlling rights. Financial performance is found to increase with the level of control held by the second largest shareholder. One possible explanation is that when the largest shareholder owns most of the control, she essentially maximizes her own utility function, which may differ from the firm's profits. When a counterbalancing pole of control exists, the best compromise between different utility functions may be to maximize profits. Corporate governance and financial performance are linked, and further research requires a sound index, based on game-theoretic arguments.

Cremer, Helmuth

PD February 1999. **TI** Direct Versus Indirect Taxation: The Design of the Tax Structure Revisited. **AU** Cremer, Helmuth; Pestieau, Pierre; Rochet, Jean-Charles. **AA** Cremer: IDEI, GREMAQ, University of Toulouse and Institut Universitaire de France. Pestieau: University of Liege and Louvain-la- Neuve, DELTA. Rochet: IDEI, GREMAP. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9910; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 25. **PR** $100 per year. **JE** D31, H21, H22, H24. **KW** Indirect Taxation. Commodity Taxation. Income Taxation. Ramsey Rules.

AB This paper studies the optimal direct/indirect tax mix in a setting where individuals differ in several unobservable characteristics (productivity and endowments). Tax instruments (income and commodity taxes) are constrained solely by the information structure. It presents general expressions for the optimal commodity tax rates and proves that contrary to Atkinson and Stiglitz's (1976) result, differential commodity taxation remains a useful instrument of optimal tax policy even if preferences are separable between labor and produced goods. The following, more specific, results are also derived. First, when cross substitution effects are small the expressions resemble traditional (many households) Ramsey rules. Second, if differences in endowments are confined to some of the goods, the tax rate on goods in which endowments differ only in good 1 (and are interpreted as "wealth"), the tax on good 2 provides an indirect way to tax the unobservable wealth. It is higher (i) the more significant are the wealth differentials, (ii) the stronger is the correlation between wealth and earning ability and (iii) the larger are the (political) weights attached to low wealth individuals.

TI The Political Economy of Social Security. **AU** Casamatta, Georges; Cremer, Helmuth; Pestieau, Pierre.

Crone, Theodore M.

PD June 1999. **TI** A Bayesian VAR Forecasting Model for the Philadelphia Metropolitan Area. **AU** Crone, Theodore M.; McLaughlin, Michael P. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/07; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 12. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C11, C51, C53, R10. **KW** Vector Autoregressions. Bayesian Models. Forecasting. Philadelphia.

AB Vector-autoregression (VAR) forecast models have been developed for many state economies, including the three states in the Third Federal Reserve District -- Pennsylvania, New Jersey, and Delaware. This paper extends that work by developing a Bayesian VAR forecast model for the Philadelphia metropolitan area and the city of Philadelphia.

PD August 1999. **TI** Measuring Housing Services Inflation. **AU** Crone, Theodore M.; Nakamura, Leonard I.; Voith, Richard. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/09; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 21. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** D13, H71, R20, R31. **KW** Housing. Owner Occupied. Implicit Rents. Capitalization Rates.

AB Recent papers have questioned the accuracy of the Bureau of Labor Statistics' methodology for measuring implicit rents for owner-occupied housing. We propose cross-checking the BLS statistics using data on owner-occupied and rental housing from the American Housing Survey. A hedonic approach that explicitly calculates capitalization rates produces a methodologically consistent measure of the rental cost of owner-occupied housing. Applying this method, we find that between 1985 and 1993 the Consumer Price Index overstated the increase in the cost of owner-occupied housing services by more than 10 percentage points.

PD November 1999. **TI** Using State Indexes to Define Economic Regions in the U.S. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/19; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 13. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C80, E32, R11, R12. **KW** Regional Economics. Business Cycles. Census.

AB When regional economists study the interaction of multi-state regions in the U.S., they typically use the regional divisions developed by the U.S. Bureau of the Census in 1910 or those of the Bureau of Economic Analysis (BEA). The current census divisions divide the states into nine regional groups. Since the 1950s the BEA has grouped the states into eight regions based primarily on cross-sectional similarities in socioeconomic characteristics. The BEA grouping is perhaps the most frequently used grouping of states for economic analysis. Since many economic studies of regions concentrate on similarities and differences in regional business cycles, it seems appropriate to group states into regions based on some common cyclical behavior. This paper explores the possibility of grouping states into regions based on common movements in state indexes of economic activity. These state indexes are variants of the coincident index developed by Stock and Watson for the U.S. economy.

Croushore, Dean

PD June 1999. **TI** A Real-Time Data Set for Macroeconomists. **AU** Croushore, Dean; Stark, Tom. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/04; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 35. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C52, C53, C82. **KW** Macroeconomic Data. Real-Time Data.

AB This paper presents the concept and uses of a real-time data set that can be used by economists for testing the robustness of published econometric results, for analyzing policy, and for forecasting. The data set consists of vintages, or snapshots, of the major macroeconomic data available at quarterly intervals in real time. The paper illustrates why such data may matter, explains the construction of the data set, examines the properties of several of the variables in the data set across the vintages, examines key empirical papers in macroeconomics and investigates their robustness to different vintages, looks at how policy analysis may be affected by data revisions, and shows how forecasts can be affected by data revisions.

PD October 1999. **TI** Does Data Vintage Matter for Forecasting? **AU** Croushore, Dean; Stark, Tom. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/15; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 18. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C53, C82. **KW** Macroeconomic Data. Real-Time Data. Forecasting.

AB This paper illustrates the use of a real-time data set for forecasting. The data set consists of vintages, or snapshots, of the major macroeconomic data available at quarterly intervals in real time. The paper explains the construction of the data set, examines the properties of several of the variables in the data set across vintages, and shows how forecasts can be affected by data revisions.

PD December 1999. **TI** A Real-Time Data Set For Macroeconomists: Does the Data Vintage Matter? **AU** Croushore, Dean; Stark, Tom. **AA** Federal Reserve

Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/21; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 23. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C52, C82, E20, E30, E40. **KW** Macroeconomic Data. Real-Time Data. Data Vintages.
AB This paper presents a real-time data set that can be used by economists for testing the robustness of published econometric results, for analyzing policy, and for forecasting. The data set consists of vintages, or snapshots, of the major macroeconomic data available at quarterly intervals in real time. This paper illustrates why such data may matter, explains the construction of the data set, examines the properties of several of the variables in the data set across vintages, and examines key empirical papers in macroeconomics, investigating their robustness to different vintages.

Cuervo, Alvaro

PD June 1999. **TI** Reasons for Mergers and Acquisitions: Organizational and Non-Explicit Factors as Determinants of Success. **AA** Complutense University of Madrid and New York University. **SR** New York University, Salomon Center Working Paper: S/99/23; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 19. **PR** $5.00 each; $100.00 yearly subscription. **JE** D82, G34, L22. **KW** Mergers. Acquisitions. Shareholder Value. Firm Organization. Agency Theory.
AB This paper reviews the reasons behind mergers and acquisitions and the conditions for their success. Whereas the literature tends to discuss two sets of reasons -- one dealing with value creation and another dealing with problems solution -- the success of merger and acquisition processes is not clear, merged firms do not create value or are divested after a period of time. The paper argues that the existence of non-explicit reasons behind mergers and acquisitions and the existence of costs in terms of large premiums and organizational problems in the integration process are the base for the lack of success.

PD June 1999. **TI** The Market for Corporate Control, Managerial Defense, and Core Shareholders: A Comparison of Tactics. **AA** Complutense University of Madrid and New York University. **SR** New York University, Salomon Center Working Paper: S/99/24; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 29. **PR** $5.00 each; $100.00 yearly subscription. **JE** G32, G38. **KW** Corporate Governance. Corporate Control. Managerial Defense. Core Shareholders. Regulation.
AB This paper provides a critical comparative analysis of corporate governance mechanisms in the Anglo-Saxon and European systems, indicating the need for more market orientation in Europe. After performing a critical review of corporate governance mechanisms, the paper analyzes corporate governance practices in Continental Europe, indicating the limitations of the market for corporate control. Although the limitations of the market for corporate control in this system have been addressed through codes of good corporate governance, in practice, the codes do not help defend the interest of shareholders. Instead, the codes are offered in defense of the interests of incumbent managers and those of large shareholders, who might derive private benefits from the control of the firm. The paper argues that in Europe it is necessary to expand the realm of action of market control mechanisms to facilitate the maximization of the value of the firm in the market.

Cumby, Robert E.

TI Is the Price Level Determined by the Needs of Fiscal Solvency? **AU** Canzoneri, Matthew B.; Cumby, Robert E.; Diba, Behzad T.

Cummins, Jason G.

PD April 1998. **TI** Taxation and the Sources of Growth: Estimates from United States Multinational Corporations. **AA** New York University. **SR** National Bureau of Economic Research Working Paper: 6533; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** C14, D24, F21, F23. **KW** Capital Growth. Tax Policy. Multinational Corporations. Investment Elasticity.
AB Capital income tax policy affects investment by the parent and affiliates of multinational corporations (MNC's). In a model in which technical advances are embodied in new capital, investment will translate directly into productivity gains. In this paper, I use this framework to guide the growth accounting decomposition and clarify the relationship between capital growth and overall firm growth. A semiparametric technique is used to correct for the usual bias that afflicts production function parameter estimates. These estimates are used to analyze the sources of MNC's growth. Three findings stand out: (1) growth in parent and affiliate capital are the most important sources of growth, with foreign direct investment (FDI) contributing more to growth than the sum of the contributions of parent and affiliate employment, and materials; (2) productivity has boomed since 1992, due to productivity growth in MNC's with Canadian affiliates; (3) the investment elasticity of productivity growth is large and adjustment costs of investment are small, suggesting that changes in the after-tax price of capital result in robust investment which translates directly into productivity gains.

PD May 1999. **TI** Investment Behavior, Observable Expectations, and Internal Funds. **AU** Cummins, Jason G.; Hassett, Kevin A.; Oliner, Stephen D. **AA** Cummins: New York University. Hassett: American Enterprise Institute. Oliner: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/27; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 51. **PR** no charge. **JE** D92, E22, G31. **KW** Investment. Tobin's Q. Cash Flow. Liquidity Constraints. Expected Returns.
AB We use earnings forecasts from securities analysts to construct more accurate measures of the fundamentals that affect the expected returns to investment. We find that investment responds significantly -- in both economic and statistical terms -- to our new measures of fundamentals. Our estimates imply that the elasticity of the investment-capital ratio with respect to a change in fundamentals is generally greater than unity. In addition, we find that internal funds are uncorrelated with investment spending, even for selected

subsamples of firms -- those paying no dividends and those without bond ratings -- that have been found to be "liquidity constrained" in previous studies. Our results cast doubt on the evidence for liquidity constraints from the many studies that have used Tobin's Q to control for the expected returns to investment.

Curry, Phillip A.

PD September 1998. **TI** Copyright, Copy Protection and Feist. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9808; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 27. **PR** $10.00 Canadian per paper. **JE** K10, O34. **KW** Copyright. Copy Protection. Feist. Intellectual Property. Law.

AB Modern consumers of intellectual property, and especially software, find that the products they buy are protected by ever more sophisticated forms of copy protection. This occurs despite the presence of legislative protection. The economic literature within the area has begun to take note, yet there has been very little formal modeling to date. This paper sets up a model for analyzing the impact of alternative forms of copy protection. It outlines a model of intellectual property creation with endogenous protection choice as well as legislative copyright and examines the welfare implications. It also relates the results to two court cases and discusses the impact they may have on future copyright law.

Cutler, David M.

PD April 1998. **TI** The Costs and Benefits of Intensive Treatment for Cardiovascular Disease. **AU** Cutler, David M.; McClellan, Mark; Newhouse, Joseph. **AA** Cutler: Harvard University and National Bureau of Economic Research. McClellan: Stanford University and National Bureau of Economic Research. Newhouse: Harvard Medical School. **SR** National Bureau of Economic Research Working Paper: 6514; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 34. **PR** $5.00. **JE** H51, I11, I12. **KW** Cardiovascular Disease. Cost-Benefit Analysis. Managed Care. Intensive Treatment.

AB This paper examines the causes and consequences of reductions in cardiovascular disease mortality, and in particular heart attack mortality, over the past several decades. Analysis of data from Medicare and review of the clinical literature indicate that a large share of the recent decline in heart attack mortality is a result of new medical interventions and increased use of existing interventions. Much of the mortality improvement appears to be the result of changes in the use of pharmaceuticals such as aspirin and clot-busting (thrombolytic) drugs. Greater use of these and other intensive medical procedures have increased the cost of treating heart attacks but have also lead to health improvements. We estimate that the value of improved health is greater than the increased cost of heart attack care, so that the cost of living for people with a heart attack is falling. We present preliminary evidence that patients in managed care receive nearly similar treatment for heart attacks compared to patients with traditional indemnity insurance, but that managed care insurers pay less for the same treatment than do traditional insurers.

TI The Geography of Medicare. **AU** Sheiner, Louise; Cutler, David M.

TI Demographic and Medical Care Spending: Standard and Non-Standard Effects. **AU** Sheiner, Louise; Cutler, David M.

Dabora, Emil

TI How are Stock Prices Affected by the Location of Trade? **AU** Froot, Kenneth A.; Dabora, Emil.

Dall'Olio, Andrea

PD December 1998. **TI** Efficiency in an Economy with Fixed Costs: A Sequential Approach. **AU** Dall'Olio, Andrea; Vohra, Rajiv. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 98/23; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 17. **PR** no charge. **JE** D51, D61. **KW** Increasing Returns. Pareto Efficiency. Fixed Costs. Sequential Equilibrium. Two-Part Tariffs.

AB In an economy with increasing returns, first-best efficiency may be impossible to attain through an equilibrium concept based on market prices, even if firms are regulated to follow marginal cost pricing. The authors examine the efficiency issue in a special but important class of economies in which the only source of non-convexities is fixed costs. Even in this context, it is possible that none of the equilibria based on marginal cost pricing are efficient. This paper shows that efficiency can be restored by modifying the equilibrium notion by constructing a two-stage equilibrium. In the first stage there is no production and agents trade their initial endowments. In the second stage, the firm is regulated to follow marginal cost pricing, its loss (or profit) is assigned to consumers through endogenously chosen taxes (or subsidies), and all markets clear. The authors prove the existence of an efficient and individually rational equilibrium.

Das, Sanjiv Ranjan

PD April 1999. **TI** A Discrete-Time Approach to Arbitrage-Free Pricing of Credit Derivatives. **AU** Das, Sanjiv Ranjan; Sundaram, Rangarajan K. **AA** Das: Harvard University and National Bureau of Economic Research. Sundaram: New York University. **SR** New York University, Salomon Center Working Paper: S/99/21; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 23. **PR** $5.00 each; $100.00 yearly subscription. **JE** G12, G13. **KW** Credit Derivatives. Risky Debt. Term Structure.

AB This paper develops a framework for modeling risky debt and valuing credit derivatives that is flexible and simple to implement, and that is, to the maximum extent possible, based on observables. Our approach is based on expanding the Heath-Jarrow-Morton term-structure model to allow for defaultable debt. Rather than follow the procedure of implying out the behavior of spreads from assumptions concerning the default process, we work directly with the evolution of spreads. The risk- neutral drifts in the resulting model possess a recursive representation that facilitates implementation and makes it possible to handle path- dependence and early exercise features without difficulty. The framework permits embedding a variety of specifications for default; we present an empirical example of a default structure which provides promising calibration results.

PD April 1999. **TI** Fee Speech: Signaling and the

Regulation of Mutual Fund Fees. **AU** Das, Sanjiv Ranjan; Sundaram, Rangarajan K. **AA** Das: Harvard University. Sundaram: New York University. **SR** New York University, Salomon Center Working Paper: S/99/22; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 34. **PR** $5.00 each; $100.00 yearly subscription. **JE** D82, G11, G23, G28, J41. **KW** Mutual Funds. Regulation. Managers. Contracts. Signaling.

AB The Investment Advisers Act of 1940 (as amended in 1970) prohibits mutual funds in the US from offering their advisers asymmetric "incentive fee" contracts in which the advisers are rewarded for superior performance vis-a-vis a chosen index but are not correspondingly penalized for underperforming it. The rationale offered in defense of the regulation is that incentive fee structures of this sort encourage "excessive" risk-taking by advisers. Apart from affecting portfolio selection incentives, however, the fee structure also influences equilibrium welfare levels in two other important ways. This paper examines a signaling model with multiple funds and multiple risky securities in which all of these effects are present. The authors find that incentive fees do lead to more (and suboptimal) risk-taking than symmetric "fulcrum fees." Nonetheless, taking into account the other roles of the fee structure, they find that investors may actually be strictly better off under asymmetric incentive fee structures.

Davis, Morris A.

PD July 1999. **TI** Intra-Household Allocation and the Mental Health of Children: Structural Estimation Analysis. **AU** Davis, Morris A.; Foster, E. Michael. **AA** Davis: Board of Governors of the Federal Reserve System. Foster: Georgia State University. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/30; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 53. **PR** no charge. **JE** D12, I12, J13. **KW** Intra-Household Allocation. Mental Health. Dynamic Programming. Structural Estimation. Child Endowments.

AB This paper estimates the structural parameters of a dynamic model where parents with one child periodically decide whether or not their child uses various mental health services. In this model, mental health services improve a child's mental health (which parents care about), however, mental health services may be costly to the parents both in terms of utility and household consumption. Using a panel data set collected as part of the Fort Bragg Mental Health Demonstration, the authors estimate the model with a maximum likelihood procedure. They estimate that parents experience relatively high disutility when a child uses mental health services.. Correspondingly, the authors find that outpatient and inpatient mental health services have permanent effects on a child's mental health. The authors conclude that the improvement over time of the mental health of the children in their data is, in large part, the outcome of forward looking parents.

Davoodi, Hamid

PD July 1999. **TI** Military Spending, the Peace Dividend, and Fiscal Adjustment. **AU** Davoodi, Hamid; Clements, Benedict; Schiff, Jerald; Debaere, Peter. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/87; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 29. **PR** not available. **JE** E62, H10, H56, H59, O19. **KW** Military Spending. Peace Dividend. Fiscal Adjustment. Public Expenditures.

AB The end of the Cold War has ushered in significant changes in worldwide military spending. This paper finds that the easing of (1) international tensions (2) regional tensions, and (3) the existence of IMF-supported programs are related to lower military spending and a higher share of nonmilitary spending in total government outlays. These factors account for up to 66 percent, 26 percent, and 11 percent of the decline in military spending, respectively. Furthermore, fiscal adjustment has implied a larger cut in military spending of countries with IMF-supported programs.

Daxhelet, Oliver

PD December 1999. **TI** Variational Inequality Models of Restructured Electricity Systems. **AU** Daxhelet, Oliver; Smeers, Yves. **AA** Daxhelet: Louvain-la-Neuve. Smeers: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9966; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 26. **PR** $100 per year. **JE** C61, C63, L23, L94. **KW** Variational Inequality. Electricity Restructuring. Computation.

AB The restructuring of electricity systems can follow different paradigms that have different impacts. The objective of this paper is to show that Variational Inequalities Problems provide a natural tool for modeling electricity restructuring in a wide range of relevant situations. Besides being a convenient modeling tool, variational inequalities can also be used as an analytical instrument for assessing properties of different restructuring models. Last but not least, variational inequality models lend themselves to computation and hence to quantitative evaluations.

de Macedo, Jorge Braga

TI Macroeconomic Policy and Institutions During the *Transition to European Union Membership.* **AU** Branson, William H.; de Macedo, Jorge Braga; Von Hagen, Jurgen.

De Palma, Andre

PD November 1998. **TI** Optimization Formulations and Static Equilibrium in Congested Transportation Networks. **AU** De Palma, Andre; Nesterov, Yurii. **AA** De Palma: Universite de Cergy-Pontoise, France. Nesterov: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9861; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 28. **PR** $100 per year. **JE** C61, C62, L91, R41. **KW** Variational Inequalities. Normal Equilibrium. Travel Costs. Existence.

AB *In this paper we study the concepts of equilibrium and* optimum in static transportation networks with elastic and non-elastic demands. The main mathematical tool of our paper is the theory of variational inequalities. We demonstrate that this theory is useful for proving the existence problem. The main contribution of this paper is to propose a new definition of equilibrium, the normal equilibrium, which exists under very general assumptions. This concept can be used, in particular, when the travel costs are discontinuous and unbounded. As examples we consider the models of signalized intersections, traffic lights and unbounded travel-time relationships. For some of those cases, the standard concepts of user and Wardrop equilibria cannot be used.

De Sinopoli, Francesco

PD May 1999. **TI** A Remark on Voters' Rationality in Besley and Coate Model of Representative Democracy. **AU** De Sinopoli, Francesco; Turrini, Alessandro. **AA** De Sinopoli: Universite Catholique de Louvain. Turrini: University of Bergamo and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9927; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 7. **PR** $100 per year. **JE** C72, D72. **KW** Voting Games. Refinements. Nash Equilibrium. Citizen-Candidate.
AB Voting games are characterized by the emergence of dominated strategies, that would be iteratively deleted by rational players. In this note we show, via an example, how applying iterated dominance restricts the set of equilibrium outcomes in Besley and Coate (1997) citizen-candidate model of representative democracy.

PD May 1999. **TI** Further Remarks on Strategic Stability in Plurality Games. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9930; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 15. **PR** $100 per year. **JE** C62, C72, D72. **KW** Plurality Rule. Regular Equilibria. Sophisticated Voting. Stable Sets.
AB In this note we show that, for generic plurality games (i.e., voting games under plurality rule), an equilibrium that induces a mixed distribution over the outcomes (i.e., with two or more candidates elected with positive probability), is regular and, hence, a Mertens' stable set. Furthermore, we show that stronger equilibrium concepts, than stability, do not guarantee the existence of a solution for some generic plurality games. A final example shows the weakness of the simple sophisticated voting principle.

PD May 1999. **TI** Two Examples of Strategic Equilibria in Approval Voting Games. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9931; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 9. **PR** $100 per year. **JE** C72, D72. **KW** Approval Voting. Sophisticated Voting. Perfect Equilibrium. Stable Set.
AB In this note, we discuss two examples of approval voting games. The first one, with six voters and three candidates, has a unique stable set, where each voter approves only his most preferred candidate. This strategy coincides with the sophisticated one, while other strategy combinations, leading to different outcomes, are selected by the perfect equilibrium concept. Moreover, this example shows that sophisticated voting, as well as strategic stability, does not imply the election of a Condorcet winner, even if it exists. The second example, with four voters and four candidates, shows that strategic stability does not exclude non-sincere strategies. Furthermore, the same results hold in complete neighborhoods of the games considered.

PD November 1999. **TI** A Note on Forward Induction in a Model of Representative Democracy. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9960; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 6. **PR** $100 per year. **JE** C72, D72. **KW** Voting Games. Nash-Equilibrium Refinement. Citizen-Candidate. Mertens' Stability.
AB The citizen-candidate approach, proposed to study the performance of representative democracies, builds on a multi-stage game where the same agents are asked whether or not to become a candidate and successively, to vote. Consistently, the solution concept adopted in Besley and Coate (1997) conforms to backward induction rationality. In this note we remark that it does not conform to forward induction rationality.

De Wolf, Oliver

PD September 1999. **TI** Optimal Strategies in N-Person Unilaterally Competitive Games. **AA** Facultes Universitaires Saint-Louis, Brussels and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9949; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 16. **PR** $100 per year. **JE** C72. **KW** N-Person Games. Unilaterally Competitive. Optimal Strategy. Nash Equilibrium.
AB In this paper, we prove that the concept of value traditionally defined in the class of two-person zero-sum games can be adequately generalized to the class of n-person weakly unilaterally competitive games introduced by Kats & Thisse (KT92b). We subsequently establish that if there exists an equilibrium in a game belonging to the latter class, then every player possesses at least an optimal strategy (i.e., a strategy yielding at least the value of this player). Furthermore, we show that, in all unilaterally competitive games that have a Nash equilibrium profile, a strategy profile is an equilibrium if and only if it is an optimal profile. From these results, we deduce a very strong foundation to the Nash equilibrium concept in unilaterally competitive games.

Debaere, Peter

TI Military Spending, the Peace Dividend, and Fiscal Adjustment. **AU** Davoodi, Hamid; Clements, Benedict; Schiff, Jerald; Debaere, Peter.

Dedola, Luca

PD October 1999. **TI** On Exchange Rate Regimes, Exchange Rate Fluctuations, and Fundamentals. **AU** Dedola, Luca; Leduc, Sylvain. **AA** Dedola: Banca d'Italia. Leduc: Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/16; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 25. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** E32, F31, F41. **KW** Business Cycles. Price-Adjustment Costs. Pricing to Market. Exchange Rates. Exchange Rate Volatility.

AB We develop a two-country, two-sector general equilibrium business cycle model with nominal rigidities featuring deviations from the law of one price. The paper shows that a model with these features can quantitatively account for the empirical fact that of the statistical properties of most macroeconomic variables, only the volatility of the real and nominal exchange rates has dramatically changed after the fall of the Bretton Woods system. In particular, we replicate some explicit non-structural tests proposed in the literature with simulated data from our artificial economy. We find that while the variability of observed fundamentals (e.g., output, money supply, and interest rates) is barely affected by the exchange rate regime, that of the exchange rate increases substantially under flexible rates.

Dehejia, Rajeev H.

PD June 1998. **TI** Causal Effects in Non-Experimental Studies: Re-Evaluating the Evaluation of Training Programs. **AU** Dehejia, Rajeev H.; Wahba, Sadek. **AA** Dehejia: Columbia University and National Bureau of Economic Research. Wahba: Morgan Stanley and Company. **SR** National Bureau of Economic Research Working Paper: 6586; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 14. **PR** $5.00. **JE** C14, C81, J31. **KW** Propensity Score. Treatment Impacts. Observational Studies. Training. Experiments.

AB This paper uses propensity score methods to address the question: how well can an observational study estimate the treatment impact of a program? Using data from Lalonde's (1986) influential evaluation of non-experimental methods, the authors demonstrate that propensity score methods succeed in estimating the treatment impact of the National Supported Work Demonstration. Propensity score methods reduce the task of controlling for differences in pre-intervention variables between the treatment and the non-experimental comparison groups to controlling for differences in the estimated propensity score. It is difficult to control for differences in pre-intervention variables when they are numerous and when the treatment and comparison groups are dissimilar, whereas controlling for the estimated propensity score is a straightforward task. The authors apply several methods, such as stratification on the propensity score and matching on the propensity score, and show that they result in accurate estimates of the treatment impact.

Della Paolera, Gerardo

PD June 1997. **TI** Finance and Development in an Emerging Market: Argentina in the Interwar Period. **AU** Della Paolera, Gerardo; Taylor, Alan M. **AA** Paolera: Universidad Tocuato Di Tella. Taylor: Northwestern University and National Bureau of Economic Research. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/089; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 20. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E44, N16, N26, O16. **KW** Argentina. Financial Markets. Development. Interwar History.

AB The long-run economic performance of Argentina since World War One has been relatively disappointing until recently. Yet, in the interwar period, signs of future retardation and recurring crises were not so obvious. It is often claimed that an unmitigated success was the remarkably rapid growth of domestic financial markets. In conventional models, such "financial deepening" would help accelerate development, especially in an industrializing economy such as Argentina's. Yet the promise of this trend was unfulfilled: first the outbreak of World War One and then the Great Depression proved a setback for the fledgling financial system, and a long-run deterioration set in after 1940. In this paper we trace the course of financial development using historical and international comparisons and we analyze both macro- and microeconomic aspects of financial intermediation.

PD August 1999. **TI** Internal Versus External Convertibility and Developing-Country Financial Crises: Lessons from the Argentine Bank Bailout of the 1930's. **AU** Della Paolera, Gerardo; Taylor, Alan M. **AA** Paolera: Universidad Torcuato Di Tella and Hoover Institution. Taylor: University of California, Davis, Hoover Institution and National Bureau of Economic Research. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C99/106; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 23. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E42, E58, F36, G21, N26. **KW** Economic History. Gold Standard. Banking Crises. Financial Crises. Internal Convertibility.

AB Argentina's money and banking system was hit hard by the Great Depression. The banking sector was awash with bad assets that built up in the 1920's. Gold convertibility was suspended in December, 1929, even before the crisis seriously damaged the core economies. Commonly, these events are seen as being driven by external real shocks associated with the World-Depression, despite the puzzle of the timing. The authors argue for an alternative, or complementary, explanation of the crisis that focuses on the inside-outside money relationship in a system of fractional-reserve banking and gold-standard rules. This internal explanation for the crisis involves no timing puzzle. The tension between internal and external convertibility can be felt when banks fall into bad times, and an internal drain can feed an external drain. The parallels with recent developing-country crises are remarkable, and the implications for the institutional design of monetary and banking systems are considered.

Demichelis, Stefano

PD August 1999. **TI** Some Consequences of the Unknottedness of the Walras Correspondence. **AU** Demichelis, Stefano; Germano, Fabrizio. **AA** Demichelis: Universita degli Studi di Pavia. Germano: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9945; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 10. **PR** $100 per year. **JE** C62, D41, D51.

KW Walras Correspondence. Knots. Dynamic Behavior. Competitive Equilibria.
AB Two basic properties concerning the dynamic behavior of competitive equilibria of exchange economies with complete markets are derived essentially from the fact that the Walras correspondence has no knots.

Dercon, Stefan

TI Adjustment Costs, Irreversibility and Investment Patterns in African Manufacturing. AU Bigsten, Arne; Collier, Paul; Dercon, Stefan; Fafchamps, Marcel; Gauthier, Bernard; Gunning, Jan Willem; Oduro, Abena; Oostendorp, Remco; Pattillo, Catherine; Soderbom, Mans; Teal, Francis; Zeufack, Albert.

Dhaene, Geert

TI Bartlett Identities Tests. AU Chesher, Andrew; Dhaene, Geert; Gourieroux, Christian; Scaillet, Oliver.

Diamond, Peter

PD October 1999. TI Social Security Investment in Equities I: Linear Case. AA Massachusetts Institute of Technology. SR Massachusetts Institute of Technology, Department of Economics Working Paper: 99/10; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. PG 19. PR $7.00 U.S., Canada, Mexico; $10.00 other international. JE D50, E66, H55, O41. KW Social Security. Overlapping Generations. Stock Market. Privatization.
AB Social Security trust fund portfolio diversification to include some equities reduces the equity premium by raising the safe real interest rate. This requires changes in taxes. Under the hypothesis of constant marginal returns to risky investments, trust fund diversification lowers the price of land, increases aggregate investment, and raises the sum of household utilities, suitably weighted. It makes workers who do not own equities on their own better off, though it may hurt some others since changed taxes and asset values redistribute wealth across contemporaneous households and across generations. In our companion paper we reconsider the effects of diversification when there are decreasing marginal returns to safe and risky investment. Our analysis uses a two-period overlapping generations general equilibrium model with two types of agents, savers and workers who do not save. The latter represent approximately half of all workers who hold no equities whatsoever.

Diba, Behzad T.

TI Is the Price Level Determined by the Needs of Fiscal Solvency? AU Canzoneri, Matthew B.; Cumby, Robert E.; Diba, Behzad T.

Diebold, Francis X.

TI The Distribution of Exchange Rate Volatility. AU Andersen, Torben G.; Bollerslev, Tim; Diebold, Francis X.; Labys, Paul.

TI The Distribution of Exchange Rate Volatility. AU Andersen, Torben G.; Bollerslev, Tim; Diebold, Francis X.; Labys, Paul.

TI How Relevant is Volatility Forecasting for Financial Risk. AU Christoffersen, Peter; Diebold, Francis X.

DiNardo, John

TI The More Things Change: Immigrants and the Children of Immigrants in the 1940's, the 1970's, and the 1990's. AU Card, David; DiNardo, John; Estes, Eugena.

Dixon, Huw D.

TI Endogenous Fluctuations in an Open Economy with Increasing Returns to Scale. AU Aloi, Marta; Dixon, Huw D.; Lloyd-Braga, Teresa.

Donald, Stephen G.

PD February 1999. TI Choosing the Number of Instruments. AU Donald, Stephen G.; Newey, Whitney K. AA Donald: Boston University. Newey: Massachusetts Institute of Technology. SR Massachusetts Institute of Technology, Department of Economics Working Paper: 99/05; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. PG 60. PR $7.00 U.S., Canada, Mexico; $10.00 other international. JE C14, C30. KW Instrument Choice. Instrumental Variables. Nonparametric Methods. Smoothing Parameters.
AB This paper considers the problem of choosing the number of instruments in the estimation of models with a right hand side endogenous variable. In many contexts Economic theory says little, if anything, about the "first stage" relationship between right hand side endogenous variables and instruments. Therefore such a relationship can be considered to be non-parametric and, moreover, asymptotically efficient estimates are possible using an appropriate non-parametric first stage. To make such methods operational in practice, one requires methods for selecting appropriate smoothing parameters, which in this case is the number of instruments. This paper develops approximate means squared error criteria that can be implemented in practice to choose the number of instruments for use in the Limited Information Maximum- Likelihood Estimator (LIML), Two-Stage Least Squares (2SLS) and a jackknife version of 2SLS. The paper shows that the criteria have certain optimality properties and illustrates their use in a Monte-Carlo experiment.

Dranove, David

PD March 1999. TI The DVD vs. DIVX Standard War: Network Effects and Empirical Evidence of Vaporware. AU Dranove, David; Gandal, Neil. AA Dranove: Northwestern University. Gandal: Tel-Aviv University and Centre for Economic Policy Research. SR Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 14/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. PG 22. PR no charge. JE K21, L12, L15, L82. KW Network Effects. Product Pre-announcements. Vaporware.
AB In most cases, the premature announcement of a future product cannot be anti-competitive. When there are network effects, however, firms may have incentives to strategically preannounce products; such pre- announcements are often referred to as "vaporware". Anti-competitive vaporware allegations have been leveled at IBM and Microsoft. Despite the antitrust concern about vaporware, there is no empirical work on the issue. In this paper, we empirically test for network effects in the DVD market and that the pre-announcement by DIVX indeed slowed down the adoption of DVD technology.

Dreze, Jacques H.

PD January 1999. **TI** On the Dynamics of Supply-Constrained Equilibria. **AA** Unviersite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9904; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 21. **PR** $100 per year. **JE** C62, D51. **KW** Tatonnement. Price Adjustment. Quantity Adjustment. Supply-Constrained Equilibrium.

AB This paper defines a simple tatonnement process of adjustments in prices and quantities, where excess demand results in nominal price increases and excess supply results in quantity rationing of supply at unchanged prices. Under reasonable assumptions, the process converges to a supply-constrained equilibrium. The result contributes to our understanding of how supply-constrained equilibria come about.

PD November 1999. **TI** On The Macroeconomics of Uncertainty and Incomplete Markets. **AA** Unviersite Catholique de Louvain. International Economic Association. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9964; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 20. **PR** $100 per year. **JE** D52, D81, E30, E61. **KW** Uncertainty. Incomplete Markets. Volatile Equilibria. Coordination Failure.

AB Presidential address for the Twelfth World Congress of the International Economic Association, summarizing semi-formally the author's recent work and concerns. Uncertainty and incomplete markets breed demand volatility as well as price and wage rigidities. The conjunction of these leads to multiple, volatile supply-constrained equilibria, typically reflecting coordination failures and apt to display persistence -- as documented by three supporting theorems. Specific implications are linked to the conclusions that we should take coordination failures seriously, try to obviate demand volatility and try to bypass price and wage rigidities.

Driscoll, John C.

PD March 1999. **TI** Sticky Prices, Coordination and Collision. **AU** Driscoll, John C.; Ito, Harumi. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/05; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 15. **PR** no charge. **JE** D43, E12, E31, E32, L13. **KW** Collusion. Coordination. Menu Costs. Monopolistic Competition.

AB New Keynesian models of price setting under monopolistic competition involve two kinds of inefficiency: the price level is too high because firms ignore an aggregate demand externality, and when there are costs of changing prices, price stickiness may be an equilibrium response to changes in nominal money even when all agents would be better off if all adjusted prices. This paper models the consequences of allowing firms to coordinate, enforcing the coordination by punishing deviators; this is equivalent to modeling firms as an implicit cartel playing a punishment game. The authors show that coordination can partially or fully eliminate the first kind of inefficiency, but cannot always remove the second. The response of prices to a monetary shock will depend on the magnitude of the punishment, and may be asymmetric. Implications for the welfare cost of fluctuations also differ from the standard monopolistic competition case.

Drudi, Francesco

PD June 1999. **TI** Signaling Fiscal Regime Sustainability. **AU** Drudi, Francesco; Prati, Alessandro. **AA** Drudi: European Central Bank. Prati: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/86; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 35. **PR** not available. **JE** D82, E62, E63, F22, H63. **KW** Signaling. Fiscal Stabilization. Tax Smoothing. Debt Sustainability. Credit Ratings.

AB This paper proposes a signaling model that offers a new perspective on why governments deviate from optimal tax smoothing and delay debt stabilization. In our model, dependable -- but not fully credible -- governments have an incentive to tighten the fiscal regime when the signaling effect on credit ratings is larger (that is, when a sufficiently large stock of debt has been accumulated). At this point, they may deviate from tax smoothing not to be mimicked by weak governments. The model predicts that primary balances and debt stocks are complementary inputs in the credit rating function as tests on Italian, Irish, Belgian, and Danish data show.

Duggan, John

PD April 1999. **TI** Mixed Refinements of Shapley's Saddles and Weak Tournaments. **AU** Duggan, John; Le Breton, Michel. **AA** Duggan: University of Rochester. Le Breton: Louvain-la-Neuve. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9921; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 36. **PR** $100 per year. **JE** C72. **KW** Shapley's Saddle. Weak Saddle. Tournaments. Mixed Saddle.

AB We investigate refinements of two solutions, the saddle and the weak saddle, defined by Shapley (1964) for two-player zero-sum games. Applied to weak tournaments, the first refinement, the mixed saddle, is unique and gives a new solution, generally lying between the GETHCA and GOTCHA sets of Schwartz (1972, 1986). In the absence of ties, all three solutions reduce to the usual top cycle set. The second refinement, the weak mixed saddle, is not generally unique, but in the absence of ties, it is unique and coincides with the minimal covering set.

Durevall, Dick

PD July 1999. **TI** A Dynamic Model of Inflation for Kenya, 1974-1996. **AU** Durevall, Dick; Ndung'u, Njuguna S. **AA** Durevall: University of Gothenburg. Ndung'u: University of Nairobi. **SR** International Monetary Fund Working Paper: WP/99/97; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 33. **PR** not available. **JE** E31, F41, O55. **KW** Inflation. Inertia. Money Demand. Exchange Rates. Terms of Trade.

AB This paper analyzes the dynamics of inflation in Kenya during 1974- 96, a period characterized by external shocks and internal disequilibria. By developing a parsimonious and empirically constant error correction model the paper finds that the exchange rate, foreign prices, and terms of trade have long-run effects on inflation, while the money supply and interest rate only have short-run effects. The dynamics of inflation are also found to be influenced by food supply constraints.

Moreover, inertia is important for the period up to 1993, when about 40 percent of current inflation was transmitted to the next quarter. After 1993, inertia drops to about 10 percent.

Dutta, Bhaskar

PD February 1999. **TI** Strategic Candidacy and Voting Procedures. **AU** Dutta, Bhaskar; Jackson, Matthew O.; Le Breton, Michel. **AA** Dutta: Indian Statistical Institute, New Delhi, India. Jackson: California Institute of Technology. Le Breton: Louvain-la-Neuve. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9911; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 25. **PR** $100 per year. **JE** C72, D72. **KW** Voting Procedures. Strategic Entry. Successive Elimination. Strategic Candidacy.

AB The paper studies the impact of considering the incentives of candidates to strategically affect the outcome of a voting procedure. First the authors show that every non-dictatorial voting procedure that satisfies unanimity is open to strategic entry or exit by candidates: there necessarily exists some candidate who can affect the outcome by entering or exiting the election, even when they do not win the election. Given that strategic candidacy always matters, the paper analyzes the impact of strategic candidacy effects. It is shown that the equilibrium set of outcomes of the well-known voting by successive elimination procedure expands in a well-defined way when strategic candidacy is accounted for.

Dwyer, Debra Sabatini

PD April 1998. **TI** Health Problems as Determinants of Retirement: Are Self-Rated Measures Endogenous? **AU** Dwyer, Debra Sabatini; Mitchell, Olivia S. **AA** Dwyer: Social Security Administration. Mitchell: University of Pennsylvania and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6503; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 16. **PR** $5.00. **JE** I19, J14, J26. **KW** Health Status. Retirement Determinants. Endogenous Self-Rating. Health Problems.

AB We explore alternative measures of unobserved health status in order to identify effects of mental and physical capacity for work on older men's retirement. Traditional self-ratings of poor health are tested against more objectively measured instruments. Using the Health and Retirement Study (HRS), we find that health problems influence retirement plans more strongly than do economic variables. Specifically, men in poor overall health expected to retire one to two years earlier, an effect that persists after correcting for potential endogeneity of self-rate health problems. The effects of detailed health problems are also examined in depth.

Dynan, Karen E.

TI Unemployment Risk and Precautionary Wealth: Evidence from Households' Balance Sheets. **AU** Carroll, Christopher D.; Dynan, Karen E.; Krane, Spencer D.

Dziobek, Claudia

TI Economic and Legal Considerations of Optimal Privatization: Case Studies of Mortgage Firms (DePFa Group and Fannie Mae). **AU** Beyer, Hans-Joachim; Dziobek, Claudia; Barrett, John R.

Eckstein, Zvi

TI Discrimination and Skill Differences in an Equilibrium Search Model. **AU** Bowlus, Audra J.; Eckstein, Zvi.

PD October 1999. **TI** The Integration of Immigrants from the Former Soviet Union in the Israeli Labor Market. **AU** Eckstein, Zvi; Weiss, Yoram **AA** Eckstein: Tel-Aviv University, Boston University and Centre for Economic Policy Research. Weiss: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 33/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 50. **PR** no charge. **JE** D13, J31, J61, J62. **KW** Immigration. Wage-Convergence. Quality-Adjustment. Marital Status.

AB This paper analyzes the recent mass immigration from the USSR to Israel. We examine three interrelated features of the assimilation process; the rise in the productive capacity of immigrants as they gradually adapt to the Israeli labor market, the rising rewards that immigrants receive for their imported skills and the role of the family in facilitating the acquisition of local skills. We estimate the role of the family in facilitating the acquisition of local skills. We estimate wage regressions to capture the growth in wages and time spent in Israel, for immigrants with different skills. We use these estimates for quality adjustment of aggregate labor and show that the aggregate capital labor ratio remained almost constant during the period of mass immigration. This explains the stable average wage of native Israelis combined with rising wages of immigrants. We find a large marriage premium for immigrants, in contrast to the small and insignificant marriage premium among native Israelis. We interpret this difference in differences as evidence for stronger within family coordination of work activities among immigrants.

Eckwert, Bernhard

PD March 1999. **TI** Incomplete Risk Sharing Arrangements and the Value of Information. **AU** Eckwert, Bernhard; Zilcha, Itzhak. **AA** Eckwert: University of Chemnitz, Germany. Zilcha: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 13/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 22. **PR** no charge. **JE** D51, D52, D81, D83. **KW** Value of Information. General Equilibrium. Risk Sharing. Blackwell Theorem.

AB The paper constructs a theoretical framework in which the value of information in general equilibrium can be linked to the efficiency of the risk sharing mechanism. We demonstrate that in economies with production, information may have negative value even though no risk sharing markets exist. As a rule of thumb the value of information tends to be lower the more efficiently macroeconomic risks are allocated. In particular, for parameterizations which result in a perfectly inefficient risk allocation the Blackwell Theorem generalizes to full equilibrium.

Edwards, Sebastian

PD April 1998. **TI** The Political Economy of Unilateral Trade Liberalization: The Case of Chile. **AU** Edwards, Sebastian; Lederman, Daniel. **AA** Edwards: University of California, Los Angeles and National Bureau of Economic Research. Lederman: The World Bank. **SR** National Bureau of Economic Research Working Paper: 6510; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 51. **PR** $5.00. **JE** F13, F14, F41. **KW** Trade Liberalization. Political Support. Reform. Chile.

AB This paper analyzes the political and economic circumstances surrounding Chile's unilateral trade liberalization during five stages, each characterized by different compensation schemes used to raise support and reduce opposition to the reforms. Between 1975 and 1979 Chile eliminated all quantitative restrictions and exchange controls, and reduced import tariffs from an average over 100 percent to a uniform 10 percent tariff. The tariff temporarily rose by 35 percent following a severe economic crisis (1983-1984), but fell to 11 percent by 1991. This liberalization was implemented simultaneously with efforts to eliminate a stubborn inflationary process, financial reforms ending decades of financial repression, and a massive privatization program. The authors examine the role played by the "reform team," investigate distributive consequences of the reforms, and analyze the mechanisms used to maintain a minimum level of support for the liberalization process. A recurrent question is whether authoritarian governments are sensitive to political considerations when implementing major policy changes. The paper also presents econometric results using household-level survey data to analyze the effects of trade liberalization on unemployment. The authors conclude that starting in the 1970's the Chilean authorities relied heavily on coalition building and compensation mechanisms to increase political support for reforms.

PD April 1998. **TI** The Morning After: The Mexican Peso in the Aftermath of the 1994 Currency Crisis. **AU** Edwards, Sebastian; Savastano, Miguel A. **AA** Edwards: University of California, Los Angeles and National Bureau of Economic Research. Savastano: International Monetary Fund. **SR** National Bureau of Economic Research Working Paper: 6516; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E52, F31, F32, F34. **KW** Currency Crisis. Currency Stabilization. Floating Exchange-Rate. Feedback Rule.

AB The Mexican peso crisis of December 1994 shocked politicians, analysts and pundits. Investors flew the country. It took a massive bail-out package to generate some tranquility in the markets in mid to late 1995. From early on the Mexican authorities stated that stabilizing the value of the peso, within the context of a freely floating exchange rate regime, was one of their most important objectives. During most of 1995 this objective seemed highly elusive. However, the peso began to exhibit an impressive degree of stability. So much so that some analysts wondered whether this stability was consistent with a freely floating regime. Some even argued that the Bank of Mexico was manipulating monetary policy to artificially maintain a strong peso. This paper tries to explain the relative stability of the peso/dollar nominal exchange rate. First, the authors ask whether the behavior of the peso/dollar rate since 1995 is broadly consistent with the behavior of a "typical" floating exchange rate. The answer was a qualified yes. Second, they explore whether during 1996-97 the Bank of Mexico followed some sort of feedback rule from exchange rate to monetary policy. The answer was another qualified yes.

Eichengreen, Barry

PD February 1997. **TI** The Baring Crisis in a Mexican Mirror. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/084; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/˜iber/wps/econwp.html. **PG** 28. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E44, F10, F32, N20, O10. **KW** Financial Crises. Mexico. Baring Crisis. Economic History.

AB Conventional wisdom has it that the Mexican crisis of 1994-95 was "the first financial crisis of the 21st century." In this paper I argue that it may be better understood as the last financial crisis of the 19th. The crisis in Mexico exhibits striking similarities to the Baring Crisis of 1890, an event that did much to shape modern opinion about the causes and consequences of financial crises and the role for official management.

PD June 1997. **TI** The Marshall Plan Today. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/090; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/˜iber/wps/econwp.html. **PG** 17. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** F10, F35, O17, O19. **KW** Foreign Aid. Capital Flows. European Recovery. Marshall Plan.

AB This paper assesses the legacy of the Marshall Plan on the occasion of the 50th anniversary of General George Marshall's historic commencement address at Harvard University. I suggest that the circumstances today are very different from those which motivated Marshall's initiative in 1947. After World War II international capital markets were repressed and demoralized; today they are flourishing. Now that international capital markets are vibrant again, the problem for policy is no longer that of the 1940's. The response developed by Marshall and his colleagues is no longer appropriate. But Marshall's key insight, that a market economy needs institutional and policy support to function effectively, is as timely today as 50 years ago.

PD June 1997. **TI** European Monetary Unification and International Monetary Cooperation. **AU** Eichengreen, Barry; Ghironi, Fabio. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/091; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/˜iber/wps/econwp.html. **PG** 46. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E58, F10, F33, F42, 020. **KW** Monetary Unification. European Union. Exchange Rates.

AB This paper describes some of the opportunities and perils for international monetary cooperation associated with EMU. The approach brings together two strands in the literature; one concerned with institutions, the other focusing on policy consensus. The analysis raises questions about the scope for monetary cooperation in Europe and across the Atlantic. While institutional and intellectual support for monetary-policy coordination within Europe with be further strengthened in Stage III of the transition to EMU, a limitation of that framework concerns relations between member states that will and that will not be founding members of the monetary union. While this problem can be remedied, it presently looms as the principal threat to monetary cohesion in Europe and to the broader program of economic and political integration with which the EMU project is linked. By comparison, institutional and intellectual support for transatlantic monetary cooperation, and for G-7 monetary cooperation more generally, remains deficient.

PD June 1997. **TI** Exchange Rate Stability and Financial Stability. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/092; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 52. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E44, F31, F33, G21, O20. **KW** Exchange Rates. Banking Crises. Currency Crises.

AB This paper considers the connections between the exchange rate and the financial system, focusing on the implications of international monetary arrangements for the stability of the banking system. The author asks questions like: Under what conditions can a currency peg jeopardize the stability of the banking system? Can adopting a peg set in motion processes that weaken the banks? Once the banking system weakens, how serious an obstacle is the currency peg to lender-of-last- resort intervention? When disturbances to the banking system originate abroad, exchange rate flexibility can help to insulate the banks from shocks to their funding and investments. It gives the authorities the opportunity to act as lenders of last resort. Conversely, when macroeconomic and financial shocks jeopardizing the stability of the banking system are home grown, pegging the exchange rate allows idiosyncratic disturbances to spill out into the rest of the world and imposes discipline on domestic policy-makers.

PD May 1998. **TI** Currency Crisis and Unemployment: Sterling in 1931. **AU** Eichengreen, Barry; Jeanne, Olivier. **AA** Eichengreen: International Monetary Fund and and National Bureau of Economic Research. Jeanne: Ecole nationale des Ponts et Chaussees. **SR** National Bureau of Economic Research Working Paper: 6563; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E44, F21, F30, F41, N14. **KW** Currency Crises. Unemployment. Silver. Economic History.

AB This paper studies the role of unemployment in sterling's interwar experience. According to most narrative accounts, the proximate cause of the 1931 sterling crisis was a high and rising unemployment rate that placed pressure on British governments to pursue reflationary policies. We present a model which, in the spirit of the "second generation" approach to currency crises, highlights the conflict between the objective of low unemployment and defense of the currency, and show that it can reproduce the main features of sterling's interwar experience. Econometric evidence lends further support to the view that the proximate cause of the sterling crisis was the dramatic rise in unemployment brought about by external deflationary forces.

PD August 1998. **TI** International Economic Policy in the Wake of the Asian Crisis. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/102; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 36. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** F31, F32, F33, F41, G21. **KW** Financial Crises. Capital Mobility. Banking. Exchange Rates. Capital Controls.

AB The Asian crisis was the third financial crisis of the 1990s. Even more than its predecessors it raised questions about the international community's approach to crisis prevention and crisis management. It led reservations to be voiced, and not only in Asia, about full and unfettered international capital mobility and about the policy priorities of the International Monetary Fund. This paper discusses the policy challenges posed by the Asian crisis. It starts in Section 1 by reconsidering the controversy over capital mobility, seeking to reconcile the fundamental case for international capital mobility with Asia's less-than-heartening recent experience. Section 2 draws lessons for country policy. It focuses on the implications for three issues at the heart of the Asian crisis: how to enhance the stability of banking systems, the connections between financial regulation and exchange rate policy, and the efficacy of capital controls. Section 3 turns to the IMF.

PD October 1998. **TI** Does Mercosur Need a Single Currency? **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/103; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 33. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** F13, F15, F31, F33, F36. **KW** Economic Integration. Monetary Union. Exchange Rates. Trade Agreements.

AB The macroeconomic turbulence that accompanied the formation of Mercosur makes it seem truly remarkable that the four countries involved in fact succeeded in taking this momentous step toward regional integration. The issue of whether Mercosur needs closer macroeconomic policy harmonization, and in particular an exchange-rate stabilization agreement or even a single currency, is now back on the table. The author argues that there is a coherent political-economy logic for why the members of the customs union might contemplate a common currency. In doing so, however, they should bear in mind that the list of preconditions for single currency to operate smoothly is rather formidable, and it is not clear that the members of Mercosur union are prepared to satisfy them.

Ejarque, Joao

PD September 1998. **TI** Skill-Neutral Shocks and Institutional Changes: Implications for Productivity Growth and Wage Dispersion. **AU** Ejarque, Joao; Tranaes, Torben. **AA** Ejarque: Universidade Nova de Lisboa, Portugal. Tranaes: University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/04;

Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 31. **PR** Free. **JE** E24, J24, J31, O33. **KW** Technology Shocks. Skill Neutrality. Productivity. Wage Dispersion. Skill Acquisition.

AB This paper studies skill-neutral technological changes in an economy where workers differ with respect to their abilities to acquire skills, implying increasing marginal costs of educating the work force. Our main result is that productivity slowdown and increasing wage dispersion can be obtained without trade or skill-biased technological changes. Moreover, when taking into account institutional changes that have occurred over the latest decades we can generate the time series pattern of wages and productivity in the U.S. and Europe as a response to neutral technology shocks. Finally, our approach indicates when and why skill-biased technology is likely to be the explanation for the above developments.

Ejrnaes, Mette

PD December 1998. **TI** Market Integration and Transport Costs in France 1825-1903: A Threshold Error Correction Approach to the Law of One Price. **AU** Ejrnaes, Mette; Persson, Karl Gunnar. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/19; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 32. **PR** Free. **JE** C32, D40, F15, N73, Q13. **KW** Market Integration. One Price Law. Error Correction. Market Integration. France.

AB This paper argues that the appropriate standard for the analysis of commodity market integration is the transport cost adjusted law of one price. A threshold error correction model that incorporates that property is developed and applied to French wheat prices in the 19th century. This type of modeling acknowledges the fact that error corrections only take place when price differentials between markets exceed transport costs. The method used generates more accurate estimates of the adjustment speed to equilibrium price differentials between markets and transport costs, which turn out to have a good fit with observed costs. Unlike previous studies, this paper shows that French wheat markets were well integrated by the middle of the 19th century.

Eliasson, Ann-Charlotte

TI Simple Monetary Policy Rules Under Model Uncertainty.
AU Isard, Peter; Laxton, Douglas; Eliasson, Ann-Charlotte.

Eliaz, Kfir

PD July 1999. **TI** Fault Tolerant Implementation. **AA** Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 21/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 56. **PR** no charge. **JE** C72, D72, D78. **KW** Implementation. Fault Tolerance. Bounded Rationality. Deviation from Equilibrium.

AB This paper investigates the implementation problem arising when some of the players are "faulty" in the sense that they fail to act optimally. The exact number and identity of the faulty players is unknown to the planner and to the players, but it is common knowledge that there are at most k faulty players. The author defines a solution concept which requires a player to optimally respond to the non-faulty players regardless of the identity and actions of the faulty players. The paper introduces a notion of fault-tolerant implementation, which unlike standard notions of full implementation, also requires robustness to deviations from the equilibrium. The main result establishes that under symmetric information any choice rule that satisfies two properties -- k+1 monotonicity and no veto power -- can be implemented by a strategic game form if there are at least three players and the number of faulty players is less than 1/2n minus 1. For exchange economies the paper demonstrates that the Walrasian correspondence and the core correspondence are implementable. The paper presents examples of simple mechanisms that implement the constrained Walrasian function and a choice rule for the efficient allocation of an indivisible good.

Ellison, Sara Fisher

PD July 1998. **TI** What Prices Can Tell Us About The Market For Antibiotics. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/10; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 30. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** D40, I11, J42, L65. **KW** Pharmaceutical Prices. Countervailing Power. Market Structure. Monopsony.

AB This paper examines pricing of wholesale antibiotics over the 1985- 1996 period, which included a number of political events and public debates concerning pharmaceuticals. Drug prices offer a valuable lens through which one can see the effects of these events and also shed light on public perceptions about drug prices and price growth. In addition, drug prices give information about changing market structure and, given unique institutions in pharmaceutical markets, provide a tool for observing the sources and effects of monopsony power. The paper findings include: First, overall price growth has been very modest over the last decade, well below that of corresponding government indexes. Second, there are significant and persistent differences across wholesale markets in price levels and price growth. Third, in contrast with the salient effect of these markets forces on drug prices, the author finds relatively little evidence of effects of major events.

Elmendorf, Douglas W.

PD March 1998. **TI** Government Debt. **AU** Elmendorf, Douglas W.; Mankiw, N. Gregory. **AA** Elmendorf: Federal Reserve Board. Mankiw: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6470; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 74. **PR** $5.00. **JE** E62, H62, H63. **KW** Debt Neutrality. Ricardian Equivalence. Deficits. Crowding Out.

AB This paper surveys the literature on the macroeconomic effects of government debt. It begins by discussing the data on debt and deficits, including the historical time series, measurement issues, and projections of future fiscal policy. The paper then presents the conventional theory of government debt, which emphasizes aggregate demand in the short run and crowding out in the long run. It next examines the theoretical and empirical debate over the theory of debt neutrality called Ricardian equivalence. Finally, the paper considers the various normative perspectives about how the government should use its ability to borrow.

Elmer, Anne Marie

TI International Evidence on the Connection between Business Cycles and Economic Growth. **AU** Pedersen, Torben Mark; Elmer, Anne Marie.

Elul, Ronel

PD January 1999. **TI** Forum-Shopping and Personal Bankruptcy. **AU** Elul, Ronel; Subramanian, Narayanan. **AA** Elul: Brown University. Subramanian: Brown University and Brandeis University. **SR** Brown University Department of Economics Working Paper: 99/01; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 16. **PR** no charge. **JE** G33, G38, H73, R23. **KW** Personal Bankruptcy. Bankruptcy Exemptions. Forum Shopping. Migration. State Government.

AB The dramatic increase in U.S. personal bankruptcy filings of the last fifteen years has focused attention on the wide disparities between different states' personal bankruptcy exemptions. These differences have been criticized both on the grounds of equity and also because they provide an incentive to move to a state with a higher exemption before declaring bankruptcy, that is to forum-shop. This paper focuses on the latter of these objections. Using data from the Panel Study of Income Dynamics (PSID), we find evidence that interstate migration to states with higher exemptions takes place for the purposes of pre-bankruptcy planning. Our results, which suggest that filers strategically exploit differences in state exemptions, support the recent legislative efforts to reform the state-based exemption system.

Engel, Robert

PD March 1998. **TI** Testing the Volatility Term Structure Using Option Hedging Criteria. **AU** Engel, Robert; Rosenberg, Joshua. **AA** Engle: University of California, San Diego. Rosenberg: New York University. **SR** New York University, Salomon Center Working Paper: S/99/32; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 18. **PR** $5.00 each; $100.00 yearly subscription. **JE** G12, G13. **KW** Volatility Term Structure. Hedging. Options. Model Misspecification.

AB The volatility term structure (VTS) reflects market expectations of asset volatility over different horizons. These expectations change over time, giving dynamic structure to the VTS. This paper evaluates volatility models on the basis of their performance in hedging option price changes due to shifts in the VTS. An innovative feature of the hedging approach is its increased sensitivity to several important forms of model misspecification relative to previous testing methods. Volatility hedging parameters are derived for several volatility models incorporating different predicted VTS dynamics and information variables. Hedging tests using S&P 500 index options indicate that the GARCH components with leverage VTS estimate are most accurate. Evidence is obtained for mean-reversion in volatility and correlation between VTS shifts and S&P 500 returns. While a convexity hedge dominates the volatility hedge for the observed sample, this result appears to be due to sample selection bias.

TI Empirical Pricing Kernels. **AU** Rosenberg, Joshua; Engel, Robert.

Erosa, Andres

PD November 1998. **TI** Optimal Taxation in Life-Cycle Economies. **AU** Erosa, Andres; Gervais, Martin. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9812; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 22. **PR** $10.00 Canadian per paper. **JE** D91, E62, H21, H23. **KW** Optimal Taxation. Life-Cycle Economies. Overlapping Generations. Consumption Tax.

AB This paper studies optimal taxation in an overlapping generations economy. We characterize the optimal path of fiscal policy, both in the long run and in the transition to the steady state. The implications of this study are in sharp contrast with the prescription offered by indefinitely-lived agent models. First, the government's desire to tax initial holdings of capital at confiscatory rates is endogenously curtailed by intergenerational re-distributional considerations. Second, because of life-cycle elements, capital income taxes are in general different from zero even in the steady state. The tax rate on capital income should only be zero if it is optimal to tax consumption goods uniformly over the lifetime of individuals. The conditions for uniform taxation of consumption depend, in turn, on preferences, the age-profile of labor productivity, and the set of taxes available to the government.

Estes, Eugena

TI The More Things Change: Immigrants and the Children of Immigrants in the 1940's, the 1970's, and the 1990's. **AU** Card, David; DiNardo, John; Estes, Eugena.

Estrella, Arturo

PD April 1998. **TI** Rethinking the Role NAIRU in Monetary Policy: Implications of Model Formulation and Uncertainty. **AU** Estrella, Arturo; Mishkin, Frederic S. **AA** Estrella: Federal Reserve Bank of New York. Mishkin: Columbia University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6518; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D81, E24, E31, E52. **KW** NAIRU Gap. Short Run. Monetary Policy. Reaction Function.

AB In this paper we rethink the NAIRU concept and examine whether it might have a useful role in monetary policy. We argue that it can, but success depends critically on defining NAIRU as a short-run concept and distinguishing if from a long-run concept like the natural rate of unemployment. We examine what effect uncertainty has on the use of NAIRU in policy. Uncertainty about the level of NAIRU does not imply that monetary policy should react less to the NAIRU gap. However, uncertainty about the effect of the NAIRU gap on inflation does require adjustments to the policy reaction function. Also, as in Brainard (1967), uncertainty about the effect of the monetary policy instrument on the NAIRU gap reduces the magnitude of the policy response. We estimate a simple NAIRU gap model for the United States to obtain quantitative measures of uncertainty and to assess how these measures affect our view of the policy reaction function.

PD July 1998. **TI** Dynamic Inconsistencies: Counterfactual Implications of a Class of Rational Expectations

Models. **AU** Estrella, Arturo; Fuhrer, Jeffrey C. **AA** Estrella: Federal Reserve Bank of New York. Fuhrer: Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/05; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 25. **PR** No charge. **JE** C51, E20, E31, E32, E52. **KW** Rational Expectations. Monetary Policy. Model Construction. Inflation. Business Cycles.

AB A number of recent papers have developed dynamic macroeconomic models that incorporate rational expectations and optimizing foundations. While these models' theoretical motivation is sound, the dynamic implications of many of the specifications can be seriously at odds with the data, for both inflation and real-side variables. The models imply that inflation or real spending "jump" in response to shocks, in contradiction to empirical evidence that shows that both price and real- side variables exhibit gradual and "hump-shaped" responses to real and monetary shocks. For models that are intended for monetary policy analysis, these dynamic shortcomings should be considered quite serious. This paper identifies a simple feature common to many dynamic specifications for prices and real variables that causes the problem. The paper also discusses several potential solutions to the problem, including alterations to the expectations assumption, to the order of differencing implicit in the model, and to the underlying behavioral assumptions.

PD May 1999. **TI** Are "Deep" Parameters Stable? The Lucas Critique as an Empirical Hypothesis. **AU** Estrella, Arturo; Fuhrer, Jeffrey C. **AA** Estrella: Federal Reserve Bank of New York. Fuhrer: Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 99/04; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 29. **PR** No charge. **JE** C52, E32, E52. **KW** Lucas Critique. Policy Invariance. Regime Shifts. Optimizing Models. Monetary Policy Rules.

AB Since the publication of the classic Lucas (1976) critique, researchers have endeavored to specify models that capture the underlying dynamic decision-making behavior of consumers and firms who require forecasts of future events. By uncovering the "deep" structural parameters that characterize these fundamental behaviors, and by explicitly modeling expectations, it is argued, one can capture the dependence of agents' behavior on the functions describing policy. However, relatively little effort has been devoted to testing the critique's empirical importance. This paper develops a set of tests for small macroeconometric models, especially those used for monetary policy analysis, and implements them on a set of models used extensively in the literature. In particular, the authors attempt to test the robustness of optimizing versus non-optimizing models to changes in the monetary policy regime. The authors present evidence that some forward-looking models from the recent literature may be less stable than their better- fitting backward-looking counterparts.

Eudry, Gwen

PD November 1999. **TI** Regime-Switching in Expectations Over The Business Cycle. **AU** Eudry, Gwen; Perli, Roberto. **AA** Eudry: Board of Governors of the Federal Reserve System. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/17; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 21. **PR** no charge except overseas airmail, \$3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** D84, E32. **KW** Business Cycles. Expectations. Markov Switching.

AB In this paper we argue that a plausible reason why output and other major U.S. macroeconomic time series seem to follow a Markov switching process might be strictly related to expectations. We show that a time series of expectations of future output from the Survey of Professional Forecasters is the only one among the many we analyze that has switching properties compatible with those of output. Starting from this empirical evidence we then present a business cycle model with shocks to expectations (sunspots) that produces time series with the same properties as the U.S. data.

Evenett, Simon J.

PD April 1998. **TI** On Theories Explaining the Success of the Gravity Equation. **AU** Evenett, Simon J.; Keller, Wolfgang. **AA** Evenett: Rutgers University. Keller: University of Wisconsin and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6529; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** \$5.00. **JE** C14, F11, F12. **KW** Heckscher-Ohlin Theory. Increasing Returns. Gravity Equation. Factor Endowments.

AB We analyze two main theories of international trade, the Heckscher- Ohlin theory and the Increasing Returns trade theory, by examining whether they can account for the empirical success of the so-called Gravity Equation. Since versions of both models can generate this prediction, we tackle the model identification problem by conditioning bilateral trade relations on factor endowment differences and the share of intra-industry trade, because only for large factor endowment differences does the Heckscher-Ohlin model generate specialization of production and the Gravity Equation, and it predicts inter-, not intra- industry trade. There are three major findings: First, little production is perfectly specialized due to factor endowment differences, making the perfect specialization version of the Heckscher-Ohlin model an unlikely candidate to explain the empirical success of the Gravity Equation. Second, increasing returns are important causes for perfect product specialization and the Gravity Equation, especially among industrialized countries. Third, to the extent that production is not perfectly specialized across countries, we find support for both Heckscher-Ohlin and Increasing Returns models. Based on these findings, we argue that both models explain different components of the international variation of production patterns and trade volumes, with important implications for productivity growth, labor and macroeconomics.

Eyckmans, Johan

PD May 1999. **TI** Simulating With RICE Coalitionally Stable Burden Sharing Agreements for the Climate Change Problem. **AU** Eyckmans, Johan; Tulkens, Henry. **AA** Eyckmans: Katholieke Universiteit Leuven. Tulkens: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9926; Center for Operations Research and Econometrics, Universite

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 30. **PR** $100 per year. **JE** C71, C72, Q25, Q28. **KW** Climate Change. Burden Sharing. Simulations. Cooperative Core.

AB In this paper we test empirically with the Nordhaus and Yang (1996) RICE model the core property of the transfer scheme advocated by German, Toint and Tulkens (1997). This scheme is designed to sustain full cooperation in a voluntary international environment agreement by making all countries at least as well off as they would be by joining coalitions adopting emission abatement policies that maximize their coalition payoff; under the scheme no individual country, nor any subset of countries would have an interest in leaving the international environmental agreement. The simulations show that the transfer scheme yields an allocation in the core of the carbon emission abatement game associated with the RICE model. Finally, we discuss some practical implications of the transfer scheme for current climate negotiations.

Fafchamps, Marcel

TI Adjustment Costs, Irreversibility and Investment Patterns in African Manufacturing. **AU** Bigsten, Arne; Collier, Paul; Dercon, Stefan; Fafchamps, Marcel; Gauthier, Bernard; Gunning, Jan Willem; Oduro, Abena; Oostendorp, Remco; Pattillo, Catherine; Soderbom, Mans; Teal, Francis; Zeufack, Albert.

TI Adjustment Costs, Irreversibility and Investment Patterns in African Manufacturing. **AU** Bigsten, Arne; Collier, Paul; Dercon, Stefan; Fafchamps, Marcel; Gauthier, Bernard; Gunning, Jan Willem; Oduro, Abena; Oostendorp, Remco; Pattillo, Catherine; Soderbom, Mans; Teal, Francis; Zeufack, Albert.

Favrealut, Melissa

TI Social Security's Treatment of Postwar Americans. **AU** Caldwell, Steven; Favrealut, Melissa; Gantman, Alla; Gokhale, Jagadeesh; Johnson, Thomas; Kotlikoff, Laurence J.

Fearon, Gervan

PD November 1998. **TI** Monitoring and Competitive Bidding in the Public Sector. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9817; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 35. **PR** $10.00 Canadian per paper. **JE** C72, D44, D73, D82, H40. **KW** Monitoring. Competitive Bidding. Public Sector. Bureaucracy. Game Theory.

AB This paper investigates the impact of program budget size on monitoring and competitive bidding in the public sector. A sequential game is developed involving a ministry and bureau strategically interacting in the provision of a public sector good. The ministry copes with imperfect information about the bureau's costs by choosing to monitor or to conduct a first price sealed bid auction between the bureau and a set of firms. In this respect, this study represents an extension of the Niskanen budget maximizing bureau framework. The results predict that the ministry will tend to conduct competitive bidding at low and high levels of budgetary allocation. Otherwise, the bureau is monitored. Second, increases in the budget expand the range of costs over which the bureau can win the competitive bid. Third, increases in management compensation tend to reduce the spread between the bureau's costs and its reported cost for providing the good.

Feenstra, Robert C.

TI Staggered Price Setting and Endogenous Persistence. **AU** Bergin, Paul R.; Feenstra, Robert C.

PD June 1998. **TI** The U.S.-China Bilateral Trade Balance: Its Size and Determinants. **AU** Feenstra, Robert C.; Hai, Wen; Woo, Wing T.; Yao, Shunli. **AA** Feenstra: University of California, Davis and National Bureau of Economic Research. Hai: Fort Lewis College, China Centre for Economic Research. Woo and Yao: University of California, Davis. **SR** National Bureau of Economic Research Working Paper: 6598; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** F14, F23, F32, F41. **KW** Trade. Deficit. Current Account. China.

AB This paper aims to reduce the range within which the true U.S.-China bilateral trade deficit lies and to identify the determinants of the bilateral trade deficit, offering an assessment of their relative importance. The authors calculate a smaller range of values for the bilateral trade deficit than in previous studies, due to a new estimation method that takes advantage of access to detailed Chinese Customs data at the commodity level. For example, the revised U.S.- China bilateral trade deficit is $15 billion to $20 billion in 1994, and $16 to $22 billion in 1995. In the authors' opinions, the two chief factors of the widening U.S.-China bilateral trade deficit in recent years are (i) macroeconomic forces in the U.S. and China moving in opposite direction, causing their respective overall trade balance to move in opposite directions; and (ii) the accelerated relocation of production of U.S. imports from East Asia to China.

Fehn, Rainer

TI Real Wage Rigidities, Fiscal Policy, and the Stability of EMU in the Transition Phase. **AU** Berthold, Norbert; Fehn, Rainer; Thode, Eric.

Feldman, Sarah

PD April 1998. **TI** Managed Care and Provider Volume. **AU** Feldman, Sarah; Scharfstein, David. **AA** Feldman: Brigham and Women's Hospital and Harvard Medical School. Scharfstein: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6523; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D24, I11, I12, L11. **KW** Health Outcomes. Managed Care. Provider Volume. Cancer Patients.

AB There is considerable evidence that patients that are treated by high volume physicians and hospitals have better health outcomes than patients treated by low volume physicians and hospitals. Thus, as an indirect measure of quality differences between managed care and traditional fee-for-service insurance, we compare the average provider volume of cancer patients covered by these two types of plans. We find that managed care patients tend to be treated by lower volume providers and that the magnitude of the differences varies by the particular cancer and managed care plan.

Feldstein, Martin

PD April 1998. **TI** Two Percent Personal Retirement Accounts: Their Potential Effects on Social Security Tax Rates and National Saving. **AU** Feldstein, Martin; Samwick, Andrew A. **AA** Feldstein: National Bureau of Economic Research. Samwick: Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6540; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 14. **PR** $5.00. **JE** G23, H55. **KW** Social Security. Individual Accounts. Retirement Investment. Pay-as- You-Go.

AB Combining the existing pay-as-you-go unfunded Social Security system with a modest program of investment-based individual accounts can eliminate the need for future increases in the payroll tax rate while also providing a higher level of retirement income than under the existing Social Security law. Continuing the existing pay-as-you-go (PAYGO) system would require permanently raising the Social Security payroll tax rate from 12.4 percent to over 18 percent. This paper analyzes a proposal to create Personal Retirement Accounts (PRA's) in which each individual would deposit 2 percent of earnings (up to the earnings limit, now $68,400). When the individual reaches retirement age and withdraws payments from the PRA, the individual's Social Security benefit in that year would be reduced by 75 cents for every dollar of PRA withdrawal. With the historic rate of return on a conservatively invested PRA account (60 percent in stocks and 40 percent in bonds), this plan would be sufficient to prevent the Social Security trust fund from ever being exhausted (as it would be in 2030 with the existing system) and would permit the current 12.4 percent payroll tax rate to continue indefinitely without increase.

Fenn, George W.

PD April 1999. **TI** Corporate Payout Policy and Managerial Stock Incentives. **AU** Fenn, George W.; Liang, Nellie. **AA** Fenn: Massachusetts Institute of Technology. Liang: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/23; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 28. **PR** no charge. **JE** G32, G35, J33. **KW** Dividends. Share Repurchases. Executive Stock Options. Stock Incentives. Payout Policy.

AB We examine how corporate payout policy is affected by managerial stock incentives using data on more than 1100 nonfinancial firms during 1993-97. We find that management share ownership encourages higher payouts by firms with potentially the greatest agency problems -- those with low market-to-book ratios and low management stock ownership. We also find that management stock options change the composition of payouts. We find a strong negative relationship between dividends and management stock options, as predicted by Lambert, Lannen, and Larcker (1989), and a positive relationship between repurchases and management stock options. Our results suggest that the growth in stock options may help to explain the rise in repurchases at the expense of dividends.

Fernandez, Raquel

PD June 1998. **TI** Education and Borrowing Constraints: Tests vs Prices. **AA** New York University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6588; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D52, E44, I22, J41. **KW** General Equilibrium. Matching. Consumption. Contracts. Education.

AB This paper examines the properties of exams and markets as alternative allocation devices under borrowing constraints. Exams dominate markets in terms of matching efficiency. Whether aggregate consumption is greater under exams than under markets depends on the power of the exam technology; for a sufficiently powerful test, exams dominate markets in terms of aggregate consumption as well. The positive effects of income taxation are analyzed and the optimal allocation scheme when wealth is observable is derived. The latter consists of a fellowship scheme in which markets set school prices but the government gives out fellowships based on need and the ability to obtain a given exam score.

Ferrer, Helene

TI Trade Fragmentation and Coordination in Bilateral Oligopolies. **AU** Bloch, Francis; Ferrer, Helene.

Flachaire, Emmanuel

PD April 1999. **TI** A Better Way to Bootstrap Pairs. **AA** GREQAM, Universite de la Mediterranee and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9924; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 6. **PR** $100 per year. **JE** C13, C15, C22. **KW** Bootstrap. Heteroskedasticity. Bootstrapping Pairs.

AB This paper examines heteroskedastic regression models, for which an appropriate bootstrap method is bootstrapping pairs, proposed by Freedman (1981). The authors propose an ameliorated version of it, with better numerical performance.

Fleischer, Lisa

PD August 1999. **TI** A Faster Capacity Scaling Algorithm For Minimum Cost Submodular Flow. **AU** Fleischer, Lisa; Iwata, Satoru; McCormick, Thomas S. **AA** Fleischer: Columbia University. Iwata: Osaka University, Japan. McCormick: University of British Columbia, Canada. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9947; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 16. **PR** $100 per year. **JE** C44, C61, D81. **KW** Submodular Flow. Shortest Paths. Strongly Polynomial. Time Algorithm.

AB The paper describes a capacity scaling algorithm for the minimum cost submodular flow problem, modifying and extending the Edmonds-Karp capacity algorithm. The modification entails scaling a relaxation parameter delta. Capacities are relaxed by attaching a complete directed graph with uniform arc capacity delta in each scaling phase. A feasible submodular flow is then modified by relaxing the submodular constraints, so that complementary slackness is satisfied. This creates discrepancies between the boundary of the flow and the base polytope of a relaxed submodular function. To reduce these discrepancies, a variant of the successive shortest path algorithm is used that augments flow along min cost paths of residual capacity of at least delta. The shortest augmenting path subroutine used is a variant of Dijkstra's algorithm modified to handle exchange capacity arcs efficiently. The result is a weakly polynomial time algorithm whose running time is better than any existing submodular flow algorithm when U is small and C is big. The authors also show how to use max mean cuts to make the algorithm strongly polynomial. The resulting algorithm is the first capacity scaling algorithm to match the current best strongly polynomial bound for submodular flow.

TI A Strongly Polynomial-Time Algorithm For Minimizing Submodular Functions. **AU** Iwata, Satoru; Fleischer, Lisa; Fujishige, Satoru.

Fleurbaey, Marc

PD December 1998. **TI** Optimal Income Taxation: An Ordinal Approach. **AU** Fleurbaey, Marc; Maniquet, Francois. **AA** Fleurbaey: Universite de Cergy-Pontoise. Maniquet: FNRS, Facultes universitaires Notre-Dame de la Paix-Namur and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9865; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 17. **PR** $100 per year. **JE** D31, D63, H21, H23. **KW** Social Welfare. Ordinal Preferences. Skill Inequalities. Marginal Tax.

AB In a model where agents have unequal production skills and different preferences, we build social welfare functions which rely only on ordinal non-comparable information on individual preferences. Social welfare functions are required to satisfy properties of compensation for inequalities in skills, and responsibility for preferences. Then, assuming skills and preferences are unobservable, we use these social welfare functions to design optimal income tax schemes. We obtain ethical foundations for, among others, a maximized minimal income, a zero marginal tax rate for low incomes, and increasing marginal tax rates.

Fontagne, Lionel

PD March 1997. **TI** Chomage Non Qualifie et Imitation: Les Raisons d'Un Accord International Sur la Propriete Intellectuelle. **AU** Fontagne, Lionel; Guerin, Jean-Louis. **AA** Fontagne: Universite de Paris I Pantheon-Sorbonne and CEPII. Guerin: CEPII. **SR** CEPII Working Paper: 97/04; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 39. **PR** Free. **JE** F13, J31, J38, O14, O34. **KW** Wages. Intellectual Property. Innovation. Social Clauses. Trade.

AB When developed countries are faced by "unfair" competition from low- wage economies, the existence of social benefits such as minimum wages or unemployment insurance claims can hinder innovation and growth. However, these conclusions are likely to be challenged by a lasting technology gap between countries. But stopping technology transfers to the South is difficult to enforce and inefficient. Three main ideas have been advanced to reduce the "unfairness" which this competition is deemed guilty of: (1) increased flexibility in northern markets would entail greater domestic efficiency and allow firms to adapt to the new nature of the economic environment; (2) introducing a social clause in international trade would erase the so-called unfairness of the North- South competition; (3) the installation of global rules on intellectual property rights would enable the correction of the market failure on the appropriability of research investments. These three measures are examined in a two-country transition theoretical framework.

PD April 1997. **TI** Trade Patterns Inside the Single Market. **AU** Fontagne, Lionel; Freudenberg, Michael; Peridy, Nicolas. **AA** Fontagne: Universite de Paris I Pantheon-Sorbonne and CEPII. Freudenberg: CEPII and Universite de Nantes. **SR** CEPII Working Paper: 97/07; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 145. **PR** Free. **JE** F02, F15, F23, J49, R30. **KW** Economic Integration. Single Market. Intra-Industry Trade. Product Quality. Labor Markets.

AB European economic integration still remained unachieved in the mid- 1980's. New developments in international trade theory, such as agglomeration economies or the vertical differentiation of products, need to be taken into account when assessing the Single market and giving an overview of intra-European trade patterns. Bilateral intra-European trade flow statistics for some 10,000 products are used to break down trade into three categories: inter-industry trade, intra- industry trade in horizontally differentiated products, and intra- industry trade in vertically differentiated products. As expected, intra-industry trade has increased since the mid-1980's. The share of intra-industry trade of varieties has remained remarkably stable over time, whereas the share of intra-industry trade of qualities has increased rapidly, and is now the most important trade type in intra- European trade. As a result, the deep integration of European economies has not so far implied deep specialization. The importance of intra-industry trade in qualities suggests a qualitative division of labor.

PD December 1997. **TI** How Foreign Direct Investment Affects International Trade and Competitiveness: An Empirical Assessment. **AU** Fontagne, Lionel; Pajot, Michael. **AA** Fontagne: University of Paris I and CEPII. Pajot: CEPII. **SR** CEPII Working Paper: 97/17; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 42. **PR** Free. **JE** F14, F21, F23. **KW** International Trade. Foreign Direct Investment. Complementarity.

AB The issue of complementarity versus substitution between trade and FDI is addressed using a matching of trade and FDI data broken down by industry and by partner. Estimates are based on data for France, the U.S., Sweden, the EU12, Japan, Italy and the Netherlands. Controlling for joint determinants of trade and FDI, the complementarily between both flows is ascertained for a panel of French industries. Outward FDI is associated with a trade surplus and conversely for the host country. This surplus is roughly identical on U.S. data, though U.S. outward FDI has much stronger complementarity effects. The impact of U.S. inward FDI is weaker, given the difference in domestic market sizes. Pooling the data for 14 declaring countries facing 15 partners in one sector, the symmetry between trade surplus and trade deficits associated with FDI flows is striking. Estimates based on FDI stocks highlight contrasting results, embodying some substitution effects.

Forges, Francoise

PD October 1999. **TI** Incentive Compatible Core and Competitive Equilibria in Differential Information Economies. **AU** Forges, Francoise; Heifetz, Aviad; Minelli, Enrico. **AA** Heifetz: Tel-Aviv University. Forges: THEMA, Universite de Cergy- Pontoise and Institut Universitaire de France. Minelli: Universita di Brescia. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 34/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 24. **PR** no charge. **JE** C71, D51, D82. **KW** Incentive Compatibility. Core. Differential Information. Competitive Equilibria.

AB If the allocations of a differential information economy are defined as incentive compatible state-contingent lotteries over consumption goods, competitive equilibrium allocations exist and belong to the (ex- ante incentive) core. Furthermore, any competitive equilibria allocation can be viewed as an element of the core of the n-fold replicated economy, for every n. The converse holds under the further assumption of independent private values but not in general, as shown by a counter- example.

Forslid, Rikard

TI Incremental Trade Policy and Endogenous Growth: A q-Theory Approach. **AU** Baldwin, Richard E.; Forslid, Rikard.

Fortune, Peter

PD December 1996. **TI** Tax-Exempt Bonds Really Do Subsidize Municipal Capital. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/09; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 22. **PR** No charge. **JE** E62, H20, H71, H74. **KW** Taxation. Debt. Capital. Municipal Investment. Subsidies.

AB The traditional view of municipal finance holds that the federal tax- exemption of interest payments by state and local (municipal) governments provides a capital-cost subsidy to municipal investment equal to the difference between interest rates on taxable and tax-exempt bonds. Recently, a new view has emerged which argues that tax-exemption plays a minor role, if any, in shaping municipal investment decisions. According to this new view, communities will use tax finance at the margin except in the unusual case where only debt finance is used. Thus, tax-exemption is an intramarginal (lump sum) transfer providing no incentive for municipal investment. This paper concludes that the new view's policy prescriptions rest on implausible assumptions about voters' financial opportunities and costs. A broadened analysis incorporating leverage-related interest rates and constraints on financial assets and debt restores tax-exemption as a municipal capital-cost subsidy under a wide range of conditions.

PD September 1998. **TI** Weekends Can Be Rough: Revisiting the Weekend Effect in Stock Prices. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/06; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 19. **PR** No charge. **JE** E22, E44, G12. **KW** Stock Returns. Capital Markets. Trading Breaks. Weekend Effect. Asset Pricing.

AB While some studies focus on performance surrounding periods of unscheduled trading breaks, other studies look at performance around periods of scheduled trading breaks (holidays, weekends). This paper fits into the second group. The authors revisit the "weekend effect" in common stock returns. Their focus is on two characteristics of differential returns over intraweek trading days and over weekends: the mean return, or "drift," and the standard deviation of returns, or "volatility." The authors find that in the last 18 years the volatility over weekends has been stable, at about 10-20 percent greater for the three days from Friday's close to Monday's close than for a single intraweek trading day. However, while there was a large and statistically significant negative return over weekends prior to 1987, the post-1987 results indicate no weekend drift. In short, the negative weekend drift appears to have disappeared although weekends continue to have low volatility.

Foster, E. Michael

TI Intra-Household Allocation and the Mental Health of Children: Structural Estimation Analysis. **AU** Davis, Morris A.; Foster, E. Michael.

Frankel, Jeffrey A.

PD May 1997. **TI** Country Funds and Asymmetric Information. **AU** Frankel, Jeffrey A.; Schmukler, Sergio L. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/087; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 42. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** D82, F30, G11, G14, G15. **KW** Asymmetric Information. Country Funds. Closed-End Funds. Information Cost. Noise Traders.

AB Closed-end country funds trade in New York at their price. Their Net Asset Value (NAV) represents the value of the underlying assets, usually traded in each particular country. If the holders of the underlying assets have more information about local assets than the country fund holders, changes in NAV's will tend to explain future changes in prices but not vice versa. This paper shows that most NAV's appear exogenous; while most prices reject exogeneity. Past changes in NAV's and discounts predict current prices more frequently than prices and discounts predict NAV's. The price (NAV) adjustment coefficients are low and negatively correlated with the local (foreign) market variability -- but not with the fund price (NAV) variability. These findings are consistent with the existence of asymmetric information in international capital markets. The appendix introduces a model of asymmetric information that rationalizes the authors' empirical findings.

Freudenberg, Michael

TI Trade Patterns Inside the Single Market. **AU** Fontagne, Lionel; Freudenberg, Michael; Peridy, Nicolas.

PD August 1998. **TI** La Regionalisation du Commerce International: Une Evaluation par les Intensites Relatives Bilaterales. **AU** Freudenberg, Michael; Gaulier, Guillaume; Unal-Kesenci, Deniz. **AA** Freudenberg: CEPII. Gaulier: Universite de Paris I. Unal-Kesenci: CEPII. **SR** CEPII Working Paper: 98/05; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website:

www.cepii.fr/docw.htm. **PG** 103. **PR** Free. **JE** F13, F15, F21, F23. **KW** Trade Agreements. Economic Integration. Regional Trade.

AB The regionalization of international trade is a structural phenomenon linked to factors resulting from proximity: geographic distance and hence transport costs; but also cultural, historical and linguistic links; the similarity of political systems, of living standards, and of trade policies. The regional agreements are not a substitute for such real integration. The first goal of this paper is to show up regional trade networks, by measuring "trade proximity" between partner countries with the coefficients of relative bilateral intensity of trade. They compare observed bilateral flows with theoretical flows that reflect the overall capacity of the partners to trade. The second objective of this paper focuses on the explanation of relative intensities using an econometric model. In this case, the idea of multiple distance is stressed using three exogenous variables: relative geographic distance, the gap between specialization structures and economic distance. Six variables indicating regional accords complete the equation.

Fried, Jesse

TI The Uneasy Case for the Priority of Secured Claims in Bankruptcy: Further Thoughts and a Reply to Critics. **AU** Bebchuk, Lucian Arye; Fried, Jesse.

Fried, Joel

TI Canadian Tax Deferred Savings Plans and the Foreign Property Rule. **AU** Bugess, David; Fried, Joel.

Friedberg, Leora

PD May 1998. **TI** The Effect of Old Age Assistance on Retirement. **AA** University of California, San Diego and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6548; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 28. **PR** $5.00. **JE** H53, J14, J26, N32. **KW** Benefit Levels. Labor Supply. Retirement Decision. Social Security.

AB Researchers have devoted considerable attention to analyzing the impact of Social Security on retirement, with mixed findings. However, Old Age Assistance (OAA), a means-tested program established at the same time, dwarfed Social Security until the 1950's and coincided with the early decline in elderly participation. In addition, OAA benefit levels were determined by the states -- a key source of policy variation that is missing in the case of Social Security. I estimate the relationship between OAA benefit levels and elderly labor force participation using individual data from 1940 and 1950 Censuses. The effect of OAA is found to be strong and implies that participation would have risen slightly instead of falling if benefits had not been raised during the 1940's. I also present evidence against the endogeneity of state benefit levels.

Friedberg, Rachel M.

PD November 1998. **TI** Does University Students' Choice of Field of Study Respond to High- Skilled Immigration? **AA** Brown University and National Bureau of Economic Research. **SR** Brown University Department of Economics Working Paper: 99/07; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 18. **PR** no charge. **JE** I21, J24, J31, J44, J61. **KW** Education. Immigration. Human Capital. Occupational Choice. Labor Supply.

AB This paper explores a new margin of adjustment to immigration, namely university students' choice of field of study. The field choices of university students in Israel -- particularly those of freshmen and prospective freshmen -- are found to have changed significantly, following the immigration to Israel of a large number of experienced Russian engineers and medical professionals in the 1990's. The share of Israeli undergraduates majoring in those two fields fell substantially, while the share majoring in law, a field with almost no Russians, rose. Students appear to respond to perceived changes in relative labor market conditions across fields. However, the magnitude of the response is insufficient to explain the finding that relative wages across occupations in Israel did not change following the mass migration of Russians to Israel.

Froot, Kenneth A.

PD May 1998. **TI** How are Stock Prices Affected by the Location of Trade? **AU** Froot, Kenneth A.; Dabora, Emil. **AA** Frott: Harvard University and and National Bureau of Economic Research. Dabora: Morgan Stanley and Company. **SR** National Bureau of Economic Research Working Paper: 6572; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 14. **PR** $5.00. **JE** G12, G15, G30. **KW** Asset Pricing. Financial Markets. Investor Heterogeneity. Agency Problems. International Markets.

AB The authors examine pairs of large, "Siamese twin" companies whose stocks are traded around the world but have different trading and ownership habitats. Twins pool their cashflows so, with integrated markets, twin stocks should move together. In contrast, the relative prices of twin stocks appear correlated with the markets where they are traded most, i.e., a twin's relative price rises when the market on which it is relatively intensively traded rises. Several explanations for this phenomenon are examined: discretionary uses of dividend income by parent companies, differences in parent expenditures; voting rights issues; currency fluctuations; ex-dividend-date timing issues; and tax- induced investor heterogeneity. Only that latter hypothesis can explain some of the facts. Other possible explanations include: i) country-specific sentiment shocks affect share price movements of locally- traded stocks in proportion to their local trading/ownership intensity, and ii) investors are rational, but markets are segmented by frictions other than international transactions costs.

Fuhrer, Jeffrey C.

TI Computationally Efficient Solution and Maximum Likelihood Estimation of Nonlinear Rational Expectations Models. **AU** Bleakley, Hoyt; Fuhrer, Jeffrey C.

PD November 1996. **TI** Towards a Compact, Empirically Verified Rational Expectations Model for Monetary Policy Analysis. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/08; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 37. **PR** No charge. **JE** E21, E22, E31, E43, E52. **KW** Monetary Policy. Consumption. Investment. Rational Expectations.

AB This paper extends the sticky-price models of Fuhrer and

Moore (1995a,b) to include explicit, optimization-based consumption and investment decisions. The goal is to use the resulting model for monetary policy analysis; consequently, strong emphasis is placed on empirical validation of the model. I use a canonical formulation of the consumer's problem from Campbell and Mankiw(1989), and a time-to-build investment model with costs of adjustment. The restrictions imposed by these models, in conjunction with those imposed on prices and output by the Fuhrer-Moore contracting specification, imply dynamic behavior that is grossly inconsistent with the data.

PD April 1998. **TI** An Optimizing Model for Monetary Policy Analysis: Can Habit Formation Help? **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/01; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 31. **PR** No charge. **JE** C61, E21, E31, E43, E52. **KW** Monetary Policy. Consumption. Welfare. Inflation. Habit Formation.
AB In earlier work (Fuhrer 1996), I document what I view as the failure of standard models of representative consumer and firm behavior to replicate the dynamics that we observe in the aggregate data. In essence, these models fail because they imply that both inflation and real variables must "jump" in response to monetary policy (and other) shocks, in contrast to identified VAR evidence that shows a gradual, "hump-shaped" response. This paper discusses a rigorous empirical standard for monetary policy models. The motivation for this discussion is that, if one wishes to conduct welfare analysis, one must be reasonably confident that the model provides a good approximation to underlying consumer and firm behavior over the monetary policy horizon, i.e., in the short-run. The paper examines a specific alternative to the standard consumption model in which consumers' utility depends in part on current consumption relative to past consumption (habit formation).

TI Dynamic Inconsistencies: Counterfactual Implications of a Class of Rational Expectations Models. **AU** Estrella, Arturo; Fuhrer, Jeffrey C.

TI Are "Deep" Parameters Stable? The Lucas Critique as an Empirical Hypothesis. **AU** Estrella, Arturo; Fuhrer, Jeffrey C.

Fujishige, Satoru

TI A Strongly Polynomial-Time Algorithm For Minimizing Submodular Functions. **AU** Iwata, Satoru; Fleischer, Lisa; Fujishige, Satoru.

Gabszewicz, Jean

PD February 1999. **TI** Workers' Skills and Product Selection. **AU** Gabszewicz, Jean; Turrini, Alessandro. **AA** Gabszewicz: Universite Catholique de Louvain. Turrini: University of Bergamo and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9906; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 10. **PR** $100 per year. **JE** D41, D42, J24, L15. **KW** Product Selection. Vertical Differentiation. Market Power. Human Capital.
AB When the production of high quality goods needs the employment of qualified labor, firms' decisions concerning quality are affected by the extent to which skills are abundant. By means of a comparison between monopoly and perfect competition, we show how market power in such a context may entail a distortion in product selection towards too high average quality.

Gallin, Joshua Hojvat

PD March 1999. **TI** Net Migration and State Labor Market Dynamics. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/16; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 32. **PR** no charge. **JE** J23, J31, J61, R23. **KW** Migration. Labor Markets. Wages. Unemployment.
AB This paper presents a simple model of migration in which the net migration rate into a state depends on the expected present value of labor market conditions and amenities. The author shows that existing empirical estimates do not separately identify the underlying parameters. The identification problem can be thought of as an omitted variable bias because no explicit measure of expected future labor market conditions is included. The author uses state-level data to estimate empirical models in which the underlying parameters are identified. He finds that high wages and low unemployment encourage in-migration, but that the omitted variable bias can be large. The author integrates the migration model into a simple labor supply and demand framework and uses his estimates of the migration model to simulate a labor market's response to permanent and transitory demand shocks. In the short run, net migration responds more to permanent shocks.

Gandal, Neil

TI The DVD vs. DIVX Standard War: Network Effects and Empirical Evidence of Vaporware. **AU** Dranove, David; Gandal, Neil.

Gantman, Alla

TI Social Security's Treatment of Postwar Americans. **AU** Caldwell, Steven; Favrealut, Melissa; Gantman, Alla; Gokhale, Jagadeesh; Johnson, Thomas; Kotlikoff, Laurence J.

TI Social Security's Treatment of Postwar Americans. **AU** Caldwell, Steven; Favrealut, Melissa; Gantman, Alla; Gokhale, Jagadeesh; Johnson, Thomas; Kotlikoff, Laurence J.

Garibaldi, Pietro

PD August 1999. **TI** Deconstructing Job Creation. **AU** Garibaldi, Pietro; Mauro, Paolo. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/109; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 38. **PR** not available. **JE** E24, J21, J63. **KW** Job Creation. Employment. Firing Costs. European Union. Labor Markets.
AB This paper studies net employment growth across 21 OECD economies in 1980-97, focusing on experiences within the European Union. It finds that sectoral effects can only partially account for differences in job creation. By contrast, it shows that a policy package including low taxation and flexible employment protection legislation is associated with high job creation and can account for most of the observed differences. The Netherlands' success is largely accounted for by the creation of part-time jobs for women aged 25-49 in the services

sector, but in most EU countries the substitution of part-time jobs for full- time jobs is considerable.

Gaulier, Guillaume

TI La Regionalisation du Commerce International: Une Evaluation par les Intensites Relatives Bilaterales. **AU** Freudenberg, Michael; Gaulier, Guillaume; Unal-Kesenci, Deniz.

Gelbard, Enrique A.

PD July 1998. **TI** Determinants of Angola's Parallel Market Real Exchange Rate. **AU** Gelbard, Enrique A.; Nagayasu, Jun. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/90; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 12. **PR** not available. **JE** F31. **KW** Exchange Rates. Cointegration. Purchasing Power Parity. Angola. Interest Rates.

AB The paper estimates Angola's equilibrium parallel market real exchange rate during the 1992-98 period. Using standard integration/co- integration techniques, the results fail to support the purchasing power parity hypothesis and indicate that two exogenous variables -- the price of oil and the foreign interest rate -- are able to explain most of the variation in the real exchange rate during the last seven years. These results contrast with the tenet that the parallel market exchange rate in Angola is solely influenced by monetary developments.

PD August 1999. **TI** Measuring Financial Development in Sub-Saharan Africa. **AU** Gelbard, Enrique A.; Leite, Sergio Pereira. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/105; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 26. **PR** not available. **JE** E44, E58, G20, O16. **KW** Financial Development. Measurement. Africa. Liberalization. Monetary Policy.

AB This study introduces an index for measuring financial development and a set of six indices representing key characteristics of the financial systems in 38 sub-Saharan African countries. The results show that these countries have made good progress in improving and modernizing their financial systems during the last decade, particularly with regard to financial liberalization and the adoption of indirect instruments of monetary policy. In many countries, however, the range of financial products remains extremely limited, interest rate spreads are wide, capital adequacy ratios are insufficient, judicial loan recovery is a problem, and the share of nonperforming loans is large.

Gentry, William M.

PD April 1998. **TI** Taxes and Investment in Annuities. **AU** Gentry, William M.; Milano, Joseph. **AA** Gentry: Columbia University and National Bureau of Economic Research. Milano: T. Rowe Price. **SR** National Bureau of Economic Research Working Paper: 6525; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E22, H23, H24, H31. **KW** Annuities. Tax Incentives. Tax-Advantaged Investment. Fixed Effects.

AB Recently, the U.S. private annuity market has grown dramatically, with aggregate annuity purchases reaching $159.3 billion in 1995. By 1994 individual annuity purchases outside of job-related retirement plans had grown to $51 billion. This paper uses state-level data on annuity premiums for 1984-93 to explore the expansion of the annuity market and the effect of taxes. Annuities are tax-advantaged investments because income taxes are deferred. Higher tax rates can affect annuity purchases by affecting the overall level of saving, inducing a switch towards tax-advantaged investments, or encouraging investors to buy annuities at younger ages to increase the value of tax deferral. Both state-level variation in income tax rates and time-series variation in federal tax policy help identify differences in tax incentives to buy annuities. In an econometric specification using year and state fixed effects, a one percentage point increase in the marginal tax rate increases per capita individual annuity purchases by 4.3 percent. However, estimates controlling for year fixed effects but not state fixed effects suggest the overall effect of taxes on annuity purchases is negative and statistically significant. Furthermore, the effect of tax rates on annuity purchases increases with the fraction of the population between ages 50 and 59.

Geraats, Petra M.

PD July 1999. **TI** Inflation and Its Variation: An Alternative Explanation. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C99/105; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 19. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E31, E52, E61. **KW** Inflation. Monetary Policy. Objective Functions.

AB This paper introduces a general objective function for monetary policy that abandons certainty equivalence and features 'prudence'. It provides an alternative explanation for the positive relation between the level and variability of inflation, both across countries and over time. In particular, the model predicts that high (low) inflation tends to be more variable (stable) over time.

Germain, Marc

PD June 1999. **TI** Financial Transfers to Sustain International Cooperation in the Climate Change Framework. **AU** Germain, Marc; Van Ypersele, Jean-Pascal. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9936; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 22. **PR** $100 per year. **JE** C71, C73, F42, Q28. **KW** Climate Change. Dynamic Games. Coalitions. Side Payments.

AB This paper deals with a cooperative game theoretic analysis of the economics of international agreements on climate change. To cope with the question of the voluntary implementation of the international optimum, a financial transfer scheme is proposed under which no countries nor subgroup (coalition) of countries would have an interest not to join to the international agreement. The transfer scheme presents the originality to be designed in a closed-loop dynamic framework where cooperation is renegotiated at each period taking account of the current stock of pollutant. The transfer scheme is applied to the climate change problem, making use of a simple model inspired by Kverndokk (1994) and Nordhaus and Yang (1996). The results show that with the proposed sidepayments, international cooperation is indeed individually rational and rational in the sense of coalitions.

Germano, Fabrizio

TI Some Consequences of the Unknottedness of the Walras Correspondence. **AU** Demichelis, Stefano; Germano, Fabrizio.

TI A Comparison of Standard Multi-Unit Auctions with Synergies. **AU** Albano, Gian-Luigi; Germano, Fabrizio; Lovo, Stefano.

Gertler, Paul J.

TI Empowerment and Efficiency: The Economics of Agrarian Reform. **AU** Banerjee, Abhijit; Gertler, Paul J.; Ghatak, Maitreesh.

Gervais, Martin

PD June 1998. **TI** Housing Taxation and Capital Accumulation. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9807; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 33. **PR** $10.00 Canadian per paper. **JE** E62, H23, H24, H30. **KW** Housing Taxation. Capital Accumulation. Imputed Rents. Mortgages. Welfare.

AB This paper studies the impact of the preferential tax treatment of housing capital in a model economy that includes the main housing tax provisions currently in place in the U.S. and a minimum down payment requirement upon purchasing non-divisible houses. Distortions arise because the tax code makes the return on housing capital larger than that on business capital. The wedge between the two rates of return emanates from the failure to tax imputed rents and is amplified by the presence of mortgage interest deductibility. Simulations show that either taxing imputed rents or eliminating mortgage interest deductibility substantially increases welfare. Moreover, welfare gains accrue to individuals at every income level and distributional effects are much smaller than conventionally believed.

TI Optimal Taxation in Life-Cycle Economies. **AU** Erosa, Andres; Gervais, Martin.

Ghatak, Maitreesh

TI Empowerment and Efficiency: The Economics of Agrarian Reform. **AU** Banerjee, Abhijit; Gertler, Paul J.; Ghatak, Maitreesh.

PD November 1998. **TI** The Economics of Lending with Joint Liability: Theory and Practice. **AU** Ghatak, Maitreesh; Guinnane, Timothy W. **AA** Ghatak: University of Chicago. Guinnane: Yale University. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/16; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 28. **PR** Free. **JE** D82, G21, G24, N23, O12. **KW** Joint Liability. Group Lending. Credit Cooperatives. Asymmetric Information. Development.

AB Institutions that rely on joint liability to facilitate lending to the poor have a long history and are now a common feature of many developing countries. Economists have proposed several theories of joint liability lending that stress various aspects of its informational and enforcement advantages over other forms of lending. This paper analyzes how joint-liability lending promotes screening, monitoring, state verification, and enforcement of repayment. An empirical section draws on case studies to highlight how joint liability works in practice.

TI Inequality, Market Imperfections, and Collective Action Problems. **AU** Bardhan, Pranab; Ghatak, Maitreesh.

Ghirardato, Paolo

PD March 1999. **TI** Choquet Rationality. **AU** Ghirardato, Paolo; Le Breton, Michel. **AA** Ghirardato: California Institute of Technology. Le Breton: Louvain- la-Neuve. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9912; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 22. **PR** $100 per year. **JE** C72, D81. **KW** Revealed Preferences. Rationalizability. Belief Functions. Choquet Integrals.

AB The paper provides a characterization of the consequences of the assumption that a decision maker with a given utility function is Choquet rational: She maximizes expected utility, but possibly with respect to non-additive beliefs, so that her preferences are represented by Choquet expected utility (CEU). The characterization shows that this notion of rationality allows one in general to rationalize more choices than is possible when beliefs have to be additive. More surprisingly, the authors find that a considerable restriction on the types of beliefs allowed does not change the set of rational actions. They then remark on the relation between the predictions of the CEU model, of a similar model (the max-min expected utility model), and those of subjective expected utility when the risk attitude of the decision maker is not known. The paper closes with an application of the result to the definition of a solution concept (in the spirit of rationalizability) for strategic-form games.

Ghironi, Fabio

TI European Monetary Unification and International Monetary Cooperation. **AU** Eichengreen, Barry; Ghironi, Fabio.

Ghosh, Atish R.

PD March 1998. **TI** Thresholds and Context Dependence in Growth. **AU** Ghosh, Atish R.; Wolf, Holger. **AA** Ghosh: International Monetary Fund. Wolf: New York University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6480; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E31, I28, O11, O40. **KW** Non-Linear Growth. Development. Inflation. Secondary Education.

AB Is there a single recipe for fast growth? Much of the recent cross- section empirical growth literature implicitly assumes there is. Yet both development and growth theory -- as well as casual empiricism -- suggest pervasive non-linearities in the growth process. Low inflation may "grease the wheels of commerce" while high inflation may arrest them, secondary education may be crucial for promoting growth in open economies, but be largely ineffective in war-ravaged countries, etc. Such threshold effects and context dependence are difficult to capture in standard multivariate regressions, but are readily identified by classification tree analysis, undertaken here. Our results suggest that both types of non-linearities are indeed pervasive. The findings go some way towards explaining the limited robustness of cross-country growth regressions, and argue against the existence of a universal growth recipe.

Ghosh, Madanmohan

PD March 1998. **TI** The Value of MFN Treatment. **AU** Ghosh, Madanmohan; Perroni, Carlo; Whalley, John. **AA** Ghosh: University of Western Ontario. Perroni: University of Warwick. Whalley: University of Western Ontario and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6461; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 30. **PR** $5.00. **JE** C78, F02, F13. **KW** MFN. Trading Partners. GATT. Bargaining.

AB We discuss most favored nation (MFN) treatment in trade agreements, suggesting that its value to individual countries depends critically on the relevant model solution concept used to evaluate it. We analyze both rights to MFN treatment in foreign markets, and the obligation to grant MFN treatment in home markets; the heart of the post-war GATT/WTO multilateral trading system. In a traditional competitive equilibrium framework, MFN gives benefits to small countries in being able to free ride on bilateral tariff concessions exchanged between larger countries in GATT/WTO negotiating rounds. In a non-cooperative Nash equilibrium framework, MFN restrains retaliatory actions to be non-discriminatory. In a cooperative bargaining framework in which trade policies are jointly set, MFN changes the threat point and hence affects the bargaining solution. We use a calibrated numerical model of global trade in which we compute all three solution concepts and compare MFN and non MFN equilibria for each. We use the GTAP (1992) data base, concluding that quantitatively the most significant effect of MFN seems to be in its impact on bargaining rather than on competitive and Nash equilibrium solutions; being beneficial to smaller countries.

PD October 1998. **TI** Endogenous Effort and Intersectoral Labour Transfers Under Industrialization. **AU** Ghosh, Madanmohan; Whalley, John. **AA** Ghosh: University of Western Ontario. Whalley: University of Western Ontario, University of Warwick and National Bureau of Economic Research. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9908; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 26. **PR** $10.00 Canadian per paper. **JE** J43, J62, O14, O47. **KW** Endogenous Effort. Labor Transfers. Growth. Industrialization. Development.

AB This paper discusses the welfare and one time growth effects from the intersectoral labor transfers that typically accompany early industrialization in the developing countries, suggesting that endogenous determination of effort is key to evaluating their significance. The authors formulate Lewis type models in which the product of effort and labor enters each sector's production function, and individuals in the traditional agricultural sector only receive a fraction of the return to their incremental effort due to average product pricing of labor. In this case, the level of effort in each sector is endogenously determined along with the intersectoral allocation of labor, since the representative household is modeled as having a utility function defined over goods along with the disutility of effort. Differences in effort levels across sectors support accompanying differences in average and marginal products of labor. The authors use this model to analyze growth processes in Thailand and South Korea.

Gilboa, Itzhak

PD September 1999. **TI** Inductive Inference: An Axiomatic Approach. **AU** Gilboa, Itzhak; Schmeidler, David. **AA** Gilboa: Tel-Aviv University. Schmeidler: Tel-Aviv University and the Ohio State University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 29/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 32. **PR** no charge. **JE** D81, D83, D84. **KW** Learning. Inductive Inference. Maximum Likelihood. Conditional Probability.

AB A predictor is asked to ranked eventualities according to their plausibility based on past cases. We assume that she can form a ranking given any memory that consists of repetitions of past cases. Mild consistency requirements on these rankings imply that they have a numerical representation via a matrix assigning numbers to eventuality- case pairs, as follows. A memory is identified with a vector, counting the number of repetitions of each case. Multiplication of the matrix by a memory vector yields a numerical representation of the ordinal plausibility ranking given that memory. Interpreting this result for the ranking of theories or hypotheses, rather than of specific eventualities, it is shown that one may ascribe to the predictor subjective conditional probabilities of cases given theories, such that her rankings of theories agree with their likelihood functions.

PD September 1999. **TI** Cognitive Foundations of Probability. **AU** Gilboa, Itzhak; Schmeidler, David. **AA** Gilboa: Tel-Aviv University. Schmeidler: Tel-Aviv University and the Ohio State University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 30/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 46. **PR** no charge. **JE** D11, D81, D84. **KW** Subjective Probability. Uncertainty. Cancellation Condition. Utility Maximization.

AB Prediction is based on past cases. The authors assume that a predictor can rank eventualities according to their plausibility given any memory that consists of repetitions of past cases. A companion paper shows that under mild consistency requirements, these rankings can be represented by numerical functions, such that the function corresponding to each eventuality is linear in the number of case repetitions. This paper extends the analysis to rankings of events. The main result is that a cancellation condition a la de Finetti implies that these functions are additive with respect to union of disjoint sets. If the set of past cases coincides with the set of possible eventualities, natural conditions are equivalent to ranking events by their empirical frequencies. More generally, the results may describe how individuals form probabilistic beliefs given cases that are only partially pertinent to the prediction problem at hand, and how this subjective measure of pertinence can be derived from likelihood rankings. The same mathematical results are used to obtain an axiomatic derivation of expected utility maximization under risk. The paper offers an account of the cognitive process by which one may become an expected utility maximizer in the face of uncertainty.

PD September 1999. **TI** A Note on Utility in Case-Based Decision Theory. **AU** Gilboa, Itzhak; Schmeidler, David. **AA** Gilboa: Tel-Aviv University. Schmeidler: Tel-Aviv University and the Ohio State University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 31/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 14. **PR** no charge. **JE** D11, D81. **KW** Uncertainty. Case-Based Decisions. Decision Rules. Preferences.

AB This note provides an axiomatic derivation of a case-based decision rule. It shows that, if preference orders over available acts in various contexts satisfy certain consistency requirements, then these orders can be numerically represented by maximization of a similarity-weighted utility function. Both the similarity function and the utility function are simultaneously derived from preferences, and the axiomatic derivation also suggests a way of eliciting these theoretical concepts from in-principle observable preferences.

Gintis, Herbert

TI Wealth Inequality, Wealth Constraints and Economic Performance. **AU** Bardhan, Pranab; Bowles, Samuel; Gintis, Herbert.

Giorgianni, Lorenzo

TI Excess Volatility and the Asset-Pricing Exchange Rate Model with Unobservable Fundaments. **AU** Bartolini, Leonard; Giorgianni, Lorenzo.

Giot, Pierre

PD April 1999. **TI** Co-Integration and Leadership in the European Off-Season Fresh Fruit Market. **AU** Giot, Pierre; Henry De Frahan, Bruno; Pirotte, Nicolas. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9922; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 23. **PR** $100 per year. **JE** C22, D43, L13, L66. **KW** Co-Integration. Market Leadership. Off-Season Fruit. European Union.

AB This paper tests markets co-integration, market leadership and price margins in the context of the recent development of European markets for imported off-season fresh fruit from countries in the Southern Hemisphere. The Engle-Granger and Johansen co-integration tests show that the main European markets for off-season fresh apples and table grapes were well integrated during the 1994-97 period. The vector autoregressive-error correction mechanism (VAR-ECM) model form is used to characterize the spatial co-integrating relationships among these markets during the same period. Statistical tests on meaningful restrictions on these VAR-ECM models show that the major import market of Rotterdam significantly leads the wholesale markets for table grapes in Germany down the supply chain but does not lead the wholesale markets in France and Germany for apples. They also show higher price margins between the import and wholesale markets for table grapes than for apples. The table grape variety imported from South Africa was consistently traded at a higher price during the 1994-98 period compared to the same variety from Chile. Using an industry survey, this paper discusses the econometric results and provides recommendations.

PD July 1999. **TI** Time Transformation, Intraday Data and Volatility Models. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9944; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 34. **PR** $100 per year. **JE** C22, G12. **KW** Intraday Data. Trades and Quotes. Intraday Volatility. Market Liquidity.

AB This paper focuses on the trade and quote data for the IBM stock traded at the NYSE. Two different frameworks are presented for analyzing this dataset. First, using regularly sampled observations, the authors characterize the intraday volatility of the mid-point of the bid-ask quotes by estimating GARCH and EGARCH models, accounting for intraday seasonality. They also highlight the impact of characteristics of the trade process (traded volume, number of trades and average volume per trade) on the volatility specifications. Secondly, the paper deals directly with the irregularly spaced data. The authors review two time transformations that allow a thinning of the original dataset such that new durations are defined. The newly defined price and volume durations are characterized and the performance of the Log-ACD (Log Autoregressive Conditional Duration) model for modeling these durations is assessed. Moreover, price durations allow an easy computation of intraday volatility and this method compares favorably to ARCH estimations.

Glaeser, Edward L.

PD June 1998. **TI** What Do Prosecutors Maximize?: An Analysis of Drug Offenders and Concurrent Jurisdiction. **AU** Glaeser, Edward L.; Kessler, Daniel P.; Piehl, Anne Morrison. **AA** Glaeser: Harvard University and National Bureau of Economic Research. Kessler: Stanford University and National Bureau of Economic Research. Piehl: University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6602; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 25. **PR** $5.00. **JE** H11, J24, K42. **KW** Law. Prosecutors. Human Capital. Illegal Behavior. Prisons.

AB This paper presents a model of prosecutors' decision-making processes in which prosecutors (both federal and state) internalize some of the benefits of reducing crimes, but also care about developing their own human capital. Since U.S. attorneys make their decision first, they have the opportunity to take the cases that will further their human capital development, knowing that the local district attorneys will handle the other cases. Using two surveys on prison admissions, we find that defendants who are better educated, richer, married, white, have higher-paying occupations, and have less extensive criminal records are more likely to be incarcerated in the federal system. Conversely, state prisons are more likely to incarcerate individuals who are particularly likely to be difficult prisoners, despite the supposed advantages of federal prisons in dealing with the most dangerous criminals.

Goemans, Michel X.

PD June 1999. **TI** Approximate Edge Splitting. **AA** Universite Catholique de Louvain. **SR** Universite

Catholique de Louvain CORE Discussion Paper: 9937; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 4. **PR** $100 per year. **JE** C44, C63. **KW** Edge Splitting. Undirected Graphs. Splitting-Off. Lovasz.

AB We show that, in any undirected graph, splitting off can be performed while preserving all cuts of value at most 4/3 times the minimum value, and this is best possible. This generalizes a classical splitting-off result of Lovasz.

PD November 1999. **TI** Single Machine Scheduling With Release Dates. **AU** Goemans, Michel X.; Queyranne, Maurice; Schulz, Andreas S.; Skutella, Martin; Wang, Yaoguang. **AA** Goemans and Skutella: Universite Catholique de Louvain. Queyranne: NSERC and UNI.TU.RIM, University of British Columbia. Schulz: Sloan School of Management, Massachusetts Institute of Technology. Wang: Max- Planck Institute for Computer Science, Germany. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9961; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 30. **PR** $100 per year. **JE** C61, C63, L60. **KW** Approximation Algorithm. Linear Programming. Relaxation. Scheduling.

AB This paper considers the scheduling problem of minimizing the average weighted completion time of n jobs with release dates on a single machine. The paper studies two linear programming relaxations of the problem, one based on a time-indexed formulation, the other on a completion-time formulation. The authors show that a O (n log n) greedy algorithm leads to optimal solutions to both relaxations. The proof relies on the notion of mean busy times of jobs. Based on the greedy solution, the authors describe two simple randomized approximation algorithms, which are guaranteed to deliver feasible schedules with expected objective values within factors of 1.7451 and 1.6853, respectively, of the optimum. They are based on the concept of common and independent alpha-points, respectively. The analysis implies in particular that the worst-case relative error of the linear programming relaxations is at most 1.6853, and the paper provides instances showing that it is at least e/(e-1), approximately 1.5819. Both algorithms may be de-randomized, their deterministic versions running in O(n squared) time. The randomized algorithms also apply to the on-line setting, in which jobs arrive dynamically over time and one must decide which job to process without knowledge of jobs that will be released afterwards.

PD November 1999. **TI** Semidefinite Programs and Association Schemes. **AU** Goemans, Michel X.; Rendl, Franz. **AA** Goemans: Universite Catholique de Louvain. Rendl: Institut fur Mathematik, Universitat Klagenfurt, Austria. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9962; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 10. **PR** $100 per year. **JE** C61, C63. **KW** Semidefinite Programming. Association Scheme. Maximum Cut Problem.

AB We consider semidefinite programs, where all the matrices defining the problem commute. We show that in this case the semidefinite program can be solved through an ordinary linear program. As an application, we consider the max-cut problem, where the underlying graph arises from an association scheme.

Gokhale, Jagadeesh

PD June 1998. **TI** Medicare from the Perspective of Generational Accounting. **AU** Gokhale, Jagadeesh; Kotikoff, Laurence J. **AA** Gokhale: Federal Reserve Bank of Cleveland. Kotikoff: Boston University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6596; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 20. **PR** $5.00. **JE** E62, H51, H61. **KW** Fiscal Policy. Government Expenditures. Medicare. Generational Policy. Taxation.

AB U.S. policy changes and more optimistic fiscal forecasts have significantly improved the long-term fiscal prospects of the country. Nevertheless, unless U.S. fiscal policy changes by a lot and very soon, our descendants will face rates of lifetime net taxation that are 70 percent higher than those we now face. A number of factors, besides current and projected Medicare spending, are responsible for the imbalance in U.S. generational policy. But the ongoing excessive growth of Medicare benefits is certainly a key culprit. Achieving generational balance solely by cutting Medicare benefits is feasible but would require cutting over two-thirds of the program's expenditures assuming the cuts were made today. If one waits five years before cutting Medicare, four-fifths of the programs would have to be slashed. However we resolve our sever crisis in U.S. generational policy, it's clear that significant reduction in Medicare spending will be a major part of the story.

Goldin, Claudia

PD April 1998. **TI** The Shaping of Higher Education: The Formative Years in the United States, 1890 to 1940. **AU** Goldin, Claudia; Katz, Lawrence F. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6537; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 30. **PR** $5.00. **JE** H52, I21, I22, N31, N32. **KW** Higher Education. Public Universities. Structure of Knowledge. Education Funding.

AB The American university was shaped in a formative period from 1890 to 1940. The scale and scope of institutions greatly increased, the research university blossomed, states vastly increased funding of higher education, and the public sector greatly expanded relative to the private sector. Independent professional institutions, theological institutes and denominational colleges declined. Increases in the scale and scope of higher education were generated by exogenous changes in the "structure of knowledge" and by other changes that affected the professions generally and the clergy in particular. These exogenous changes may also have increased the share of students in the public sector by giving advantages to institutions that had research facilities, reputation, and a long purse. Beginning in 1910, the high school movement brought students from less privileged backgrounds to college and thus also buoyed enrollments in the public sector. States differed widely in their funding of higher education per capita. Greater generosity in 1929 is found to be positively associated with later statehood, lower private college enrollments in 1900, greater shares of employment in mining and manufacturing, higher income, and a proxy for greater and more equally distributed wealth.

Goodhue, Rachael E.

PD September 1997. **TI** Privatization, Market Liberalization And Learning In Transition Economies. **AU** Goodhue, Rachael E.; Rausser, Gordon C.; Simon, Leo K. **AA** University of California, Berkeley. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9805; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 28. **PR** $10.00 Canadian per paper. **JE** D40, D83, L10, L33, P20. **KW** Privatization. Market Liberalization. Learning. Transition Economies.

AB Privatization and market liberalization are widely considered to be complementary reforms in transition economies. This paper challenges this view and the closely related "big bang" approach to economic reform. Our analysis suggests that when pursued too vigorously, privatization may actually impede the transition process following market liberalization. Our result is based on an explicit model of market learning, which is a vital component of the economic transition process. Compared to a fully-functioning market in a market economy, a market in transition is characterized by greater uncertainty regarding market conditions, including free market equilibrium levels of prices and quantities. Market participants must learn about these conditions through their participation in the market process. When the effects of learning are incorporated into the analysis, less than full privatization is optimal when the costs of learning are sufficiently important.

Goolsbee, Austan

PD April 1998. **TI** Investment Subsidies and Wages in Capital Goods Industries: To the Workers Go the Spoils? **AA** University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6526; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 21. **PR** $5.00. **JE** E24, H22, J31. **KW** Wages. Rent-Sharing. Capital Goods. Investment Subsidies.

AB This paper looks at the impact of investment tax subsidies on the labor market for capital goods workers using data from 1979-88 Current Population Survey. The results show that investment subsidies drive up the wages of workers who produce capital goods relative to other manufacturing workers. A 10 percent investment tax credit, for example, raises the relative wage of capital goods workers by 2.5-3.5 percent on average and up to around 10 percent, depending on the workers' characteristics. The evidence is consistent with an existing literature on the cyclicality of manufacturing wages as is the evidence that the wage increases are largest for workers with low education, workers with less tenure, and workers in non-management occupations. The evidence is also consistent with the literature on rent-sharing in profitable industries as are the results indicating the importance of unions for the wage increases. Either way, the evidence of rising wages is an important part of the upward sloping supply of capital goods identified in previous work and means that much of the benefit of investment subsidies is passed to capital suppliers and their employees.

PD April 1998. **TI** Does Government R&D Policy Mainly Benefit Scientists and Engineers? **AA** University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6532; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** H56, J22, J31, O32. **KW** R&D Subsidies. Rate of Return. Wage Rate. Crowd Out.

AB Conventional wisdom holds that the social rate of return to Research & Development significantly exceeds the private rate of return and therefore, Research & Development should be subsidized. In the U.S., the government has directly funded a large fraction of total Research & Development spending. This paper shows that there is a serious problem with such government efforts to increase inventive activity. The majority of Research & Development spending is actually just salary payments for Research & Development workers. Their labor supply, however, is quite inelastic so when the government funds Research & Development, a significant fraction of the increased spending goes directly into higher wages. Using CPS data on wages of scientific personnel, this paper shows that government Research & Development spending raises wages significantly, particularly for scientists related to defense such as physicists and aeronautical engineers. Because of higher wages, conventional estimates of the effectiveness of Research & Development policy may be 30 to 50 percent too high. The results also imply that by altering the wages of scientists and engineers even for firms not receiving federal support, government funding directly crowds out private inventive activity.

Gordon, Roger H.

PD May 1998. **TI** Are "Real" Responses to Taxes Simply Income Shifting Between Corporate and Personal Tax Bases? **AU** Gordon, Roger H.; Slemrod, Joel. **AA** Gordon: University of Michigan and and National Bureau of Economic Research. Slemrod: University of Michigan Business School and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6576; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 52. **PR** $5.00. **JE** H21, H23, H24, H25, J33. **KW** Income Taxes. Business Taxes. Income Shifting. Compensation. Taxation.

AB Two well-noted phenomena of recent decades are the increasing concentration of personal income and the declining rate of corporate profitability. This paper investigates to what extent these two trends have a common explanation -- shifting of income to the personal tax base from the corporate tax base caused by the generally declining difference between personal tax rates and corporation income tax rates. This paper presents evidence that a substantial amount of income shifting has occurred since 1965, based on time-series regression analyses that reveal that an increase in corporate tax rates relative to personal rates resulted in an increase in reported personal income and a drop in reported corporate income. The authors focus on one mechanism for shifting -- changing the form of compensation for executives and other workers. The potential importance of income shifting requires a reinterpretation of both the efficiency and distributional consequences of tax structure changes.

Gotibovski, Menachem

TI Immigration, Search and Loss of Skill. **AU** Weiss, Yoram; Sauer, Robert M.; Gotibovski, Menachem.

Gottardi, Piero

PD April 1999. **TI** A Note on the Decomposition (at a Point) of Aggregate Excess Demand on the Grassmannian. **AU** Gottardi, Piero; Mas-Colell, Andreu. **AA** Gottardi: Universita' di Venezia and Brown University. Mas-Colell: Universitat Pompeu Fabra. **SR** Brown University Department of Economics Working Paper: 99/11; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 18. **PR** no charge. **JE** C62, D52. **KW** Market Demand. Disaggregation. Missing Markets. General Equilibrium.

AB This paper analyzes the properties of aggregate excess demand functions for economies with an arbitrary finite set of N commodities where agents face trading restrictions of a general, abstract form: their budget set is defined by K-dimensional planes in N-dimensional Real space. It is shown that, if there are at least K agents in the economy, the only general property satisfied by the value of aggregate excess demand and its derivative, at any arbitrary point, is Walras Law. The result is established by considering an economy where agents' preferences are of a "generalized Leontief" type.

TI Stochastic OLG Models, Market Structure, and Optimality. **AU** Chattopadhyay, Subir; Gottardi, Piero.

Goulder, Lawrence H.

PD March 1998. **TI** The Cost-Effectiveness of Alternative Instruments for Environmental Protection in a Second-Best Setting. **AU** Goulder, Lawrence H.; Parry, Ian W. H.; Williams, Robert C., III; Burtraw, Dallas. **AA** Goulder: Stanford University and National Bureau of Economic Research. Parry and Burtraw: Resources for the Future. Williams: Stanford University. **SR** National Bureau of Economic Research Working Paper: 6464; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 27. **PR** $5.00. **JE** D58, H21, L51, Q25. **KW** Pollution Abatement. General Equilibrium. Second-Best Setting. Pre-Existing Taxes.

AB This paper employs analytical and numerical general equilibrium models to examine the costs of pollution reduction in a second-best setting with pre-existing factor taxes. The authors compare the costs and overall efficiency impacts of emission taxes, emissions quotas, fuels taxes, performance standards, and mandated technologies, and explore how costs change with the magnitude of pre-existing taxes and the extent of pollution abatement. They find that the cost of pollution abatement rises with the rate of pre-existing distortionary taxation. For plausible values, the cost increase ranges from 35 percent to several hundred percent. The results indicate that the decision whether to auction or grandfather emissions rights can have cost impacts as important as the potential savings from converting fixed emissions quotas into tradable emissions permits. Similarly, the choice between returning revenues in lump-sum fashion or via cuts in marginal tax rates can be as important as whether an emissions tax or fuel tax is used. In both first- and second-best settings, cost differences depend importantly on the extent of pollution abatement, differing markedly at low levels of abatement. Strikingly, for all instruments except the fuel tax, these costs converge to the same value as abatement levels approach 100 percent.

PD April 1998. **TI** Optimal CO2 Abatement in the Presence of Induced Technological Change. **AU** Goulder, Lawrence H.; Mathai, Koshy. **AA** Goulder: Stanford University and National Bureau of Economic Research. Mathai: Stanford University. **SR** National Bureau of Economic Research Working Paper: 6494; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D99, H21, O31, Q28. **KW** Carbon Tax. Technological Change. Research and Development. Learning-By-Doing.

AB This paper explores the significance of policy-induced technological change for the design of carbon-abatement policies. The paper derives analytical expressions characterizing optimal CO2 abatement and carbon tax profiles under different specifications of the process of technological progress. The authors consider knowledge accumulation through Research & Development (R&D) and through learning-by-doing, and examine each specification under a cost-effectiveness and a benefit-cost policy criterion. They show that the presence of induced technological change (ITC) implies a lower time profile of optimal carbon taxes. When knowledge is gained through R&D investments, the presence of ITC justifies shifting some abatement from the present to the future. However, when knowledge is generated through learning-by-doing, the impact on the timing of abatement is analytically ambiguous. Illustrative numerical simulations indicate that the impact of ITC upon overall costs and optimal carbon taxes can be quite large in a cost- effectiveness setting but typically is much smaller under a benefit-cost policy criterion. The impact of ITC on the timing of abatement is very weak, and the effect (applicable in the benefit-cost case) on total abatement over time is generally small as well, especially when knowledge is accumulated via R&D.

Gourieroux, Christian

TI Bartlett Identities Tests. **AU** Chesher, Andrew; Dhaene, Geert; Gourieroux, Christian; Scaillet, Oliver.

TI Bartlett Identities Tests. **AU** Chesher, Andrew; Dhaene, Geert; Gourieroux, Christian; Scaillet, Oliver.

Greimel, Timothy

TI Did Steve Forbes Scare the Municipal Bond Market? **AU** Slemrod, Joel; Greimel, Timothy.

Grossman, Gene A.

PD August 1999. **TI** Incomplete Contracts and Industrial Organization. **AU** Grossman, Gene A.; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Harvard University, Tel-Aviv University and CIAR. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 25/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 46. **PR** no charge. **JE** D23, D43, D51, L22. **KW** Vertical Integration. Hold-Up Problem. Input Specificity. Efficient Allocation.

AB We develop an equilibrium model of industrial structure in which the organization of firms is endogenous. Differentiated consumer products can be produced either by vertically integrated firms or by pairs of specialized companies. Production of each variety of consumer good requires a unique, specialized component. Vertically integrated firms can manufacture the components they need in the quantity and type that maximizes profits, but they face a relatively high cost of governance. Specialized firms can produce at lower cost, but input suppliers face a potential hold-up problem. We study the equilibrium mode of organization when inputs are fully or partially specialized. We consider how the degree of competition in the market and other parameters affect the equilibrium choices, and how the equilibrium compares with efficient allocation.

Grossman, Herschel I.

PD March 1999. **TI** The State: Agent or Proprietor. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/03; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 14. **PR** no charge. **JE** D78, P16. **KW** Political Economy. State. Ruling Elite. Credibility. Economic Policy.

AB This paper addresses the following question: Does characterizing the state to be an agent of its subjects provide a useful "as if" framework for positive analysis of economic policy? Or, can we understand economic policy only by explicitly characterizing the state as proprietary, the instrument of the ruling elite?

PD April 1999. **TI** Butter and Guns: Complementarity Between Economic and Military Competition. **AU** Grossman, Herschel I.; Mendoza, Juan. **AA** Grossman: Brown University. Mendoza: State University of New York and Buffalo. **SR** Brown University Department of Economics Working Paper: 99/14; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 11. **PR** no charge. **JE** D74, H56, J45, P16. **KW** Military. Allegiance. Territory Control. Rulers. Soldiers.

AB This paper analyzes a general-equilibrium model of the complementarity between economic competition for the allegiance of subjects and military competition for the control of territory. In the model economic competition between rival rulers for the allegiance of subjects results in their subjects receiving incomes equal to the value of the marginal product of a producer. Furthermore, abstracting from destruction, military competition for the control of territory, to the extent that it shifts some subjects from producing to soldiering, increases the value of the marginal product of a producer. Consequently, as long as military competition is not too destructive, the subjects of rival rulers have higher incomes with both military and economic competition than with economic competition alone. Economic competition for allegiance causes rival rulers to bear all of the cost of allocating production to military competition and to bear more than the cost of the foregone production of soldiers.

PD May 1999. **TI** The Struggle for Survival. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/19; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 15. **PR** no charge. **JE** D23, D74, D91, J22. **KW** Resources. Conflict. Scarcity. Survival. Appropriation.

AB This paper studies the appropriative aspect of the struggle for survival. The authors assume that, if resources are scarce, then the probability of survival is low and the appropriation of additional resources has a large effect on the probability of survival. Consequently, resource scarcity causes people to allocate a large amount of time and effort to appropriative conflict. Also, anticipated future resource abundance increases the value attached to survival and, consequently, amplifies the current allocation of time and effort to appropriative conflict. Interestingly, if resources are currently sufficiently scarce, then larger anticipated future abundance can cause people to allocate sufficiently more time and effort to appropriative conflict resulting in a decrease in the sum of current and expected future utility, a "paradox of anticipated abundance.

Guerin, Jean-Louis

TI Chomage Non Qualifie et Imitation: Les Raisons d'Un Accord International Sur la Propriete Intellectuelle. **AU** Fontagne, Lionel; Guerin, Jean-Louis.

Guichard, Stephanie

PD June 1997. **TI** Pour ou Contre le Systeme Commun de TVA. **AU** Guichard, Stephanie; Lefebvre, Claire. **AA** CEPII. **SR** CEPII Working Paper: 97/13; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 75. **PR** Free. **JE** E62, F42, H25, H87. **KW** Fiscal Policy. Fiscal Harmonization. Taxation. European Union.

AB Last July, the European Commission put forward a plan to reform VAT in Europe, with the aim of setting up a "Common VAT System" in the long run, which would work within the Single Market along the lines of national models. The Commission believes that near-complete harmonization of the VAT tax base and rates would have to occur first, and Community control procedures would have to be strengthened. Lastly, to avoid major revenue losses for certain countries, the Commission has proposed to redistribute VAT revenues, using a macroeconomic tool, namely consumption, to establish an identity between consumers and tax- payers in each country. The system put forward is highly coherent, and avoids certain pitfalls which provoked the rejection of the Commission's proposal in 1987. It nevertheless suffers from certain disadvantages, notably as it envisages a compensation mechanism, which uncouples revenue collected by member states from the income they ultimately receive.

PD August 1998. **TI** La Politique Monetaire et La Crise Japonaise. **AA** CEPII. **SR** CEPII Working Paper: 98/06; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 49. **PR** Free. **JE** E51, E52, E58, G21. **KW** Monetary Policy. Speculative Bubble. International Coordination. Banking. Japan.

AB This paper proposes an analysis of the Bank of Japan's behavior during the periods of weakening and crisis of the banking sector. We estimate a reaction function using the Generalized Moment Method; this reaction function is estimated over both a long (1975-1996) and a short (1985-1996) period. We look carefully at the target path the central bank has chosen for its main objectives of monetary policy. We show that the BOJ reacts to external variables and that its reaction to inflation is ambiguous. Compared to our average rule, the monetary stance appears too loose during the bubble period, too severe at the beginning of the recession. The low interest rates since 1995 seem to result from other factors than its traditional objectives, the banking crisis.

Guinnane, Timothy W.

TI The Economics of Lending with Joint Liability: Theory and Practice. **AU** Ghatak, Maitreesh; Guinnane, Timothy W.

Guiso, Luigi

TI The Demand for Money, Financial Innovation, and the Welfare Cost of Inflation: An Analysis with Households' Data. **AU** Attanasio, Orazio P.; Jappelli, Tullio; Guiso, Luigi.

Gupta, Sanjeev

PD May 1999. **TI** Privatization, Social Impact and Social Safety Nets. **AU** Gupta, Sanjeev; Schiller, Christian; Ma, Henry. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/68; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 23. **PR** not available. **JE** D60, G32, J31, L32, L33. **KW** Privatization. Social Safety Nets. Social Welfare. State-Owned Enterprises. Transition.

AB Privatization promotes economic efficiency and growth, thereby reinforcing macroeconomic adjustment. In the short run, however, it can lead to job losses and wage cuts for workers and higher prices for consumers. This paper discusses these impacts and the fiscal implications of privatization. It then reviews various methods of privatization and finds that public sales and auctions can have more negative effects on workers but maximize the government's revenue gains. Policymakers' options for mitigating the social impact of privatization are surveyed, and experiences under adjustment programs reviewed.

Gustafson, Cynthia K.

PD March 1998. **TI** Less-Skilled Workers, Welfare Reform, and the Unemployment Insurance System. **AU** Gustafson, Cynthia K.; Levine, Phillip B. **AA** Gustafson: University of California, Berkeley. Levine: Wellesley College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6489; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 24. **PR** $5.00. **JE** I38, J65. **KW** Welfare Reform. Unemployment Insurance. Unemployment Benefits. Involuntary Separation.

AB The declining economic position over the past two decades of those workers with less skill increases the importance of the unemployment insurance (UI) system in providing a safety net during periods of unemployment. Recent welfare reform legislation, designed to encourage labor market entry of typically very low-skilled workers who are likely to have unstable work patterns at best, potentially makes the UI system a even more critical component of the safety net. This paper seeks to determine how less-skilled workers typically fare in the UI system, estimating their likelihood of becoming eligible for and collecting benefits. We find that many workers who separate from a job, and particularly those with lower levels of skill, will not be compensated by the UI system. Although minimum earnings requirements keep some less-skilled job losers from receiving UI, it is the provision mandating that separations be "involuntary" that prevents most workers from gaining UI eligibility. These findings suggest that the UI system will provide little additional support to the safety net [illegible] welfare reform.

Gustman, Alan L.

PD March 1998. **TI** Social Security Benefits of Immigrants and U.S. Born. **AU** Gustman, Alan L.; Steinmeier, Thomas L. **AA** Gustman: Dartmouth College and National Bureau of Economic Research. Steinmeier: Texas Tech University. **SR** National Bureau of Economic Research Working Paper: 6478; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** F22, H55, J14, J26. **KW** Immigrants. Social Security. Benefit Formulas. Taxes.

AB Immigrants realize higher Social Security benefits per year worked in the U.S. then U.S. born, even when earnings are identical in all years the immigrant has been in the U.S. The benefit formula favors those with low lifetime covered earnings, and the years prior to immigration are treated as years of zero earnings. If instead earnings were averaged only over years of residence in the U.S., and benefits were prorated based on the share of a 35 or 40 year base period spent in residence, immigrants would receive the same return on their social security taxes as U.S. born. For a sample from the Health and Retirement Study, a group born between 1931 and 1941, prorating reduces immigrants' social security benefits by 7 to 15 percent. For immigrants who entered in the 1980's, the reductions would be over 30 percent. Prorating would reduce the present value of benefit payments to immigrants born from 1932 to 1941 by $7.5 billion to $15 billion. Most immigrants will still pay slightly more in taxes than they will receive in benefits. Taxes received from immigrants who subsequently emigrate without collecting benefits tip the balance in favor of including immigrants.

Guzman, Andrew T.

TI An Economic Analysis of Transnational Bankruptcies. **AU** Bebchuk, Lucian Arye; Guzman, Andrew T.

Hagemann, Robert

PD July 1999. **TI** The Structural Budget Balance: The IMF's Methodology. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/95; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 13. **PR** not available. **JE** E62, H62. **KW** Budget Balance. Fiscal Policy. European Union.

AB This paper describes the methodology used by the IMF staff to calculate the structural budget balance, estimates of which are published regularly in the IMF's World Economic Outlook. The structural budget balance is the government's actual fiscal position purged of the estimated budgetary consequences of the business cycle, and is designed in part to provide an indication of the medium-term orientation of fiscal policy. Interpretation of the structural budget balance requires caution in several respects, however, some of which are reviewed in the paper. The paper then considers briefly the potential usefulness of the structural budget balance as a tool for enforcement -- under the Stability and Growth Pact -- of the European Economic and Monetary Union reference value on the deficit specified in the Maastricht Treaty.

Hai, Wen

TI The U.S.-China Bilateral Trade Balance: Its Size and Determinants. **AU** Feenstra, Robert C.; Hai, Wen; Woo, Wing T.; Yao, Shunli.

Hakura, Dalia

PD May 1999. **TI** A Test of the General Validity of the Heckscher-Ohlin Theorem for Trade in the European Community. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/70; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 33. **PR** not available. **JE** F11, F13. **KW** Heckscher-Ohlin Theorem. Technology Differences. Trade.

AB While the Heckscher-Ohlin-Vanek (HOV) theorem has been a dominant paradigm in trade theory, the empirical evidence to support it has been weak. This paper develops a modified HOV model that allows technologies to differ across countries. The revised model significantly improves the theory's accuracy in predicting trade flows in contrast to the traditional model. The paper also illustrates that, since countries have different technologies, measures of factor contents of trade in final goods using direct and domestically produced indirect input requirements are more accurate and yield more consistent predictions than do traditional measures.

Haldane, Andrew G.

PD May 1998. **TI** Forward-Looking Rules for Monetary Policy. **AU** Haldane, Andrew G.; Batini, Nicoletta. **AA** Bank of England. **SR** National Bureau of Economic Research Working Paper: 6543; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 39. **PR** $5.00. **JE** D81, E31, E37, E52. **KW** Inflation Targeting. Forecast-Based Rules. Taylor Rule. Monetary Transmission.

AB This paper evaluates a class of simple monetary policy rules which feed back from explicit forecasts of future inflation -- inflation forecast-based (IFB) rules. These rules aim to mimic current monetary policy practices among the inflation-targeting countries, where policy decisions are based on inflation forecasts. The rules themselves are evaluated using simulations from a small, rational expectations, open- economy macromodel. IFB rules are found to perform well in comparison with other simple rules, such as the Taylor rule. The reasons for this are: first, because they embody the lags in monetary transmission, aligning explicitly the control and the feedback variables of the policymaker; second, because IFB rules are capable of smoothing output by as much as is possible with rules which target output directly -- for example, through variations in the forecast horizon; and third, because IFB rules implicitly condition on all state variables, and thus are information-efficient. For these reasons, inflation-targeting rules with an explicitly forward-looking dimension are found to take us within reach of the fully-optimal rule.

Hall, Robert E.

PD April 1998. **TI** Labor-Market Frictions and Employment Fluctuations. **AA** Stanford University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6501; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E24, J41, J63, J64. **KW** Unemployment. Employment Fluctuations. Job Search. Job Separation.

AB The labor market is central to modern theories of fluctuations. The most important phenomenon to understand in a recession is the sharp decline in employment and jump in unemployment. This chapter for the Handbook of Macroeconomics considers explanations based on labor market frictions. Earlier research within the real business cycle paradigm considered frictionless labor markets where fluctuations in the volume of work effort represented substitution between work in the market and activities at home. Frictionless models fail to account for either the magnitude or persistence of fluctuations in employment, and fail completely to describe unemployment. The evidence suggests strongly that consideration of unemployment as a third use of time is critical for a realistic model. The two elements of a theory of unemployment are a mechanism for workers to lose or leave their jobs and an explanation for the time required for them to find new jobs. Theories of mechanism design or of continuous re-bargaining of employment terms provide the first. The theory of job search together with efficiency wages and related issues provides the second. Modern macro models incorporating these features come much closer than their predecessors to realistic and rigorous explanations of the magnitude and persistence of fluctuations.

PD May 1998. **TI** Why Do Some Countries Produce So Much More Output per Worker than Others? **AU** Hall, Robert E.; Jones, Charles I. **AA** Hall: Stanford University and and National Bureau of Economic Research. Jones: Stanford University. **SR** National Bureau of Economic Research Working Paper: 6564; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 39. **PR** $5.00. **JE** E22, E23, J24, O47. **KW** Production. Labor Productivity. Capital. Social Infrastructure.

AB Output per worker varies enormously across countries. Why? On an accounting basis, our analysis shows that differences in physical capital and educational attainment can only partially explain the variation in output per worker -- we find a large amount of variation in the level of the Solow residual across countries. At a deeper level, we document that the differences in capital accumulation, productivity, and therefore output per worker are driven by differences in institutions and government policies, which we call social infrastructure. We treat social infrastructure as endogenous, determined historically by location and other factors captured in part by language.

Hamermesh, Daniel S.

PD April 1998. **TI** Changing Inequality in Markets for Workplace Amenities. **AA** University of Texas and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6515; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 28. **PR** $5.00. **JE** D31, J28, J31, J32. **KW** Workplace Amenities. Industrial Safety. Work Shifts. Inequality.

AB Earnings inequality has increased sharply in the United States since the late 1970's, but there has been no evidence on the changing inequality of nonmonetary aspects of work nor on their relation to earnings. This paper begins by studying interindustry differences in occupational injuries during 1979-95, looking at risk of injury and injury duration. In industries where earnings rose relatively, a relative drop in injury rates and in the total burden of injuries was observed. Obversely, during the 1960's interindustry wage differentials narrowed, while the relative risk of injury in high-wage industries increased. Evidence from Dutch industry for 1974-92 suggests that injury rates there fell most in sectors where wages grew most rapidly. Examination of evening or night work-shifts shows analogous results for 1973-91: This disamenity was increasingly borne by low-wage male workers. Changes in earnings inequality thus have understated absolute changes in inequality in the returns to work. All the outcomes are readily explicable as income effects of exogenous shocks to the distribution of full earnings in the presence of skill-neutral changes in the cost of reducing workplace disamenities. Under reasonable assumptions we can infer that the demand for the amenities is highly income-elastic.

Hammour, Muhammad

TI Improper Churn: Social Costs and Macroeconomic Consequences. **AU** Caballero, Ricardo J.; Hammour, Muhammad.

Hancock, Diana

TI Why Are Bank Profits So Persistent? The Roles of Product Market Competition, Informational Opacity, and Regional/Macroeconomic Shocks. **AU** Berger, Allen N.; Bonime, Seth D.; Covitz, Daniel M.; Hancock, Diana.

Hansen, Claus Thustrup

PD June 1998. **TI** Duration Dependent Unemployment Benefits in Trade Union Theory. **AU** Hansen, Claus Thustrup; Jacobsen, Hans Jorgen. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/08; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 26. **PR** Free. **JE** J32, J51, J64, J65. **KW** Unemployment Benefits. Trade Unions. Unemployment.

AB The basic trade union model is extended to allow for a more sophisticated unemployment benefit system consisting of two benefit levels, one for short-term and one for long-term unemployed, and a rule determining whether an unemployed is short-or long-term. The purpose of this extension is twofold: to get a more realistic analysis of the actual benefit systems in most countries and to analyze alternative reforms to the traditional one of changing a uniform benefit level. Reforms that rebalance the benefit rates holding constant either expected income of an unemployed, aggregate benefit expenditures, or expected income of a union member can reduce unemployment.

PD June 1998. **TI** Pay-Per-View Television: Consequences of a Ban. **AU** Hansen, Claus Thustrup; Kyhl, Soren. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/10; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 22. **PR** Free. **JE** L51, L52, L82. **KW** Pay-Per-View. Television. Commercials. Regulation.

AB In the future, a ban of pay-per-view broadcasting will arise on certain events included on national lists in each EU country as put forward in the new "Television Without Frontiers" Directive from the 16th of April, 1997. This paper analyzes theoretically the consequences of such a ban when the alternative is financing the events purely by TV- commercials. Results on economic efficiency do not provide much reason for a ban. However, a ban increases consumer surplus which may support a ban for distributional reasons.

PD December 1998. **TI** Monetary Stabilization Policy in a Dynamic Stochastic Menu Cost Model. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/18; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 14. **PR** Free. **JE** E31, E32, E52. **KW** Monetary Policy. Menu Costs. Price Rigidity. Intertemporal Maximization. Business Cycles.

AB This paper analyzes systematic monetary policy in a dynamic stochastic menu cost model. The main assumptions are that price setters have to pay small adjustment costs in order to equalize actual and optimal prices whereas the central bank can do so costlessly (by adjusting the money supply) but only with a lag. It is shown that a simple (static optimal) policy that fully counteracts all shocks may reduce welfare. The policy reduces the consequences of small shocks but increases the band of inaction of the price setters. This feed-back effect on price setters increases the amount of price rigidity and reduces welfare. In fact, a socially optimal monetary policy may involve a commitment to enhance large shocks.

Hansen, Frank

TI Jensen's Operator Inequality for Functions of Several Variables. **AU** Araki, Huzihiro; Hansen, Frank.

Hansen, Henrik

TI Danish Aid Policy: Theory and Empirical Evidence. **AU** Tarp, Finn; Bach, Christian F.; Baunsgaard, Soren; Hansen, Henrik.

Hansen, Per Svejstrup

PD August 1998. **TI** Equilibrium Selection and the Rate of Convergence in Coordination Games with Simultaneous Play. **AU** Hansen, Per Svejstrup; Kaarboe, Oddvar M. **AA** Hansen: University of Copenhagen. Kaarboe: University of Bergen, Norway. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/14; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 23. **PR** Free. **JE** C72, C73. **KW** Equilibrium Selection. Coordination Games. Stochastic Stability. Waiting Time. Convergence Rate.

AB We apply the dynamic stochastic framework proposed in the recent evolutionary literature to a class of coordination games played simultaneously by the entire population. In these games, individual payoffs are determined by the player's own strategy and a summary statistic of the population's strategy profile. We demonstrate that with simultaneous play the equilibrium selection depends crucially on how best responses to the summary statistic remain piece-wise constant. In fact, all the strict Nash equilibria in the underlying stage game can be declared stochastically stable depending on how the best response mapping generates piece-wise constant best responses. Furthermore, we show that if the best response mapping is sufficiently asymmetric, the expected waiting time until the unique stochastically stable state is reached is of the same order as the mutation rate, even in the limit as the population size grows to infinity.

Hanson, Gordon H.

PD June 1998. **TI** North American Economic Integration and Industry Location. **AA** University of Texas, Austin and National Bureau of Economic Research. **SR** National

Bureau of Economic Research Working Paper: 6587; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 25. **PR** $5.00. **JE** F15, F23, O18, R12. **KW** Economic Integration. Regional Economics. Firm Location. Commercial Policy. Free Trade.

AB Does regional economic integration affect the location of economic activity inside countries? In this paper, I discuss recent academic literature on whether the movement towards free trade in North America has influenced the spatial organization of production in Canada, Mexico, or the United States. In Mexico, closer economic ties with the United States appear to have contributed to a contraction of employment in the Mexico City manufacturing belt, a rapid expansion of manufacturing employment in northern Mexico, and an increase in the wage premia paid to skilled workers. The effects of economic integration on industry location in Canada and the United States seem to have been much weaker. An exception to this finding is U.S. cities on the Mexican border, whose employment growth is strongly positively correlated with export production in neighboring Mexican regions. I also discuss implications of a possible hemispheric free trade agreement.

Haque, Nadeem

TI Spend Now, Pay Later? Tax Smoothing and Fiscal Sustainability in South Asia. **AU** Cashin, Paul; Haque, Nadeem; Olekalns, Nilss.

Harley, C. Knick

PD October 1998. **TI** Productivity Growth during the First Industrial Revolution: Inferences from the Pattern of British External Trade. **AU** Harley, C. Knick; Crafts, N. F. R. **AA** Harley: University of Western Ontario. Crafts: London School of Economics. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9809; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 28. **PR** $10.00 Canadian per paper. **JE** F14, F43, N13, N73, O52. **KW** Industrial Revolution. Ricardian Trade. Productivity Growth. Great Britain.

AB This paper examines British trade and growth in general equilibrium. It rejects Peter Temin's contention that the Crafts-Harley "new view" of sectorally concentrated productivity growth during the Industrial Revolution is inconsistent with actual industrial exports. A CGE trade model with diminishing returns in agriculture that also emphasizes demand conditions indicates that while technological change in cottons and iron were major spurs to exports, the demand for food imports generated by population growth and diminishing returns in agriculture also stimulated trade. The trade data are compatible with the "new view" and any implied adjustment to TFP growth estimates is slight.

Harm, Christian

TI Institutionalized Corruption and the Kleptocratic State. **AU** Charap, Joshua; Harm, Christian.

Harrigan, James

PD June 1998. **TI** International Trade and American Wages in General Equilibrium, 1967- 1995. **AA** Federal Reserve Bank of New York and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6609; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E24, F15, F41, J31. **KW** Wage Inequality. Relative Prices. Economic Integration. Capital. Trade.

AB In this last quarter century, wage inequality has increased dramatically in the United States. At the same time, the U.S. has become more integrated into the world economy, relative prices of final goods have changed, the capital stock has more than doubled, and the labor force has become steadily more educated. This paper estimates a flexible, empirical, general equilibrium model of wage determination in an attempt to sort out the connections between these trends. Aggregate data on prices and quantities of imports, outputs, and factor supplies are constructed from disaggregate sources. The econometric analysis concludes that wage inequality has been partly driven by changes in relative factor supplies and relative final goods prices. In contrast, imports have played a negligible direct role.

Harrison, Paul

PD July 1999. **TI** Finance and Growth: Theory and New Evidence. **AU** Harrison, Paul; Sussman, Oren; Zeira, Joseph. **AA** Harrison: Board of Governors of the Federal Reserve System. Sussman: London Business School. Zeira: Hebrew University and Centre for Economic Policy Research. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/35; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board, Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 36. **PR** no charge. **JE** E44, G21, O16, O40. **KW** Financial Intermediation. Growth. Banking. Financial Development.

AB This paper describes a feedback effect between real and financial development. The paper presents a new variable, which we call the cost of financial intermediation, through which the feedback between finance and growth operates. The theoretical part of the paper describes how specialization of financial intermediaries leads to such a feedback effect. The main result of this feedback is that differences in productivity across countries are amplified by financial intermediation. The empirical part of the paper uses U.S. cross-state data from banks' income statements to measure the cost of financial intermediation and to provide evidence for the feedback effect between finance and growth.

Hasbrouck, Joel

PD March 1999. **TI** Trading Fast and Slow: Security Market Events in Real Time. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/17; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 47. **PR** $5.00 each; $100.00 yearly subscription. **JE** G11, G12, G14, G19. **KW** Security Markets. Time Deformation. Frequency. Information.

AB Continuous security markets evolve as a sequence of timed events. This study is a descriptive analysis of NYSE market data in which trades, quote revisions and orders are considered to constitute a stationary multivariate point process, which can be analyzed by standard time- and frequency-domain techniques. There are three principal findings: (1) Although occurrence intensities for different types of events are

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

positively correlated, they are not characterized by the uniform proportionality that a strict sense of time deformation would require. (2) The frequencies and durations of informational epochs (periods of uncertainty and informational asymmetry) are highly variable. (3) The correlation in arrivals of market orders and opposing limit orders is zero or negative over periods of thirty minutes or less.

PD March 1999. **TI** Common Factors in Prices, Order Flows and Liquidity. **AU** Hasbrouck, Joel; Seppi, Duane J. **AA** Hasbrouck: New York University. Seppi: Carnegie Mellon University. **SR** New York University, Salomon Center Working Paper: S/99/18; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 29. **PR** $5.00 each; $100.00 yearly subscription. **JE** G12, G14, G19. **KW** Equity Markets. Liquidity. Asset Pricing. Stock Returns.
AB How important are cross-stock common factors in the price discovery/liquidity provision process in equity markets? We investigate two aspects of this question for the thirty Dow stocks. First, using principal components and canonical correlation analyses we find that both returns and order flows are characterized by common factors. Commonality in the order flows explains roughly half of the commonality in returns. Second, we examine variation and common covariation in various liquidity proxies and market depth (trade impact) coefficients. Liquidity proxies such as the bid-ask spread and bid-ask quote sizes exhibit time variation which helps explain time variation in trade impacts. The common factors in these liquidity proxies are relatively small, however.

Haskel, Jonathan E.

PD May 1998. **TI** Does the Sector Bias of Skill-Biased Technical Change Explain Changing Wage Inequality? **AU** Haskel, Jonathan E.; Slaughter, Matthew J. **AA** Haskel: University of London. Slaughter: Dartmouth College and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6565; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 39. **PR** $5.00. **JE** E24, F10, F41, J31, O33. **KW** Wage Inequality. Skill Biased. Sector Bias. Technological Change.
AB This paper examines whether the sector bias of skill-biased technical change (sbtc) explains changing skill premia within countries in recent decades. First, using a two-factor, two-sector, two-country model the authors demonstrate that in many cases it is the sector bias of sbtc that determines sbtc's effect on relative factor prices, not its factor bias. Thus, rising (falling) skill premia are caused by more extensive sbtc in skill-intensive (unskill-intensive) sectors. Second, the authors test the sector-bias hypothesis using industry data for many countries in recent decades. An initial consistency check strongly supports the hypothesis. The hypothesis is also strongly supported by more structural estimation on U.S. and U.K. data of the economy-wide wage changes "mandated" to maintain zero profits in all sectors in response to the sector bias of sbtc. The suggestive mandated-wage estimates match the direction of actual wage changes in both countries during the 1970's and the 1980's.

Hassett, Kevin A.

TI Investment Behavior, Observable Expectations, and Internal Funds. **AU** Cummins, Jason G.; Hassett, Kevin A.; Oliner, Stephen D.

Hausman, Jerry

TI A New Specification Test for the Validity of Instrumental Variables. **AU** Jinyong, Hahn; Hausman, Jerry.

Heckman, James J.

PD March 1998. **TI** Tax Policy and Human Capital Formation. **AU** Heckman, James J.; Lochner, Lance; Taber, Christopher. **AA** Heckman: University of Chicago and National Bureau of Economic Research. Lochner: University of Chicago. Taber: Northwestern University. **SR** National Bureau of Economic Research Working Paper: 6462; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 7. **PR** $5.00. **JE** E22, H23, H24, J24. **KW** Skill Formation. Flat Tax. Capital Formation. Progressive Taxation.
AB Missing from recent discussions of tax reform is any systematic analysis of the effects of various tax proposals on skill formation. This gap in the literature in empirical public finance is due to the absence of any empirically based general equilibrium models with both human capital formation and physical capital formation that are consistent with observations on modern labor markets. This paper is a progress report on our ongoing research on formulating and estimating dynamic general equilibrium models with endogenous heterogeneous human capital accumulation. Our model explains many features of rising wage inequality in the U.S. economy (James Heckman, Lance Lochner and Christopher Taber, 1998). In this paper, we use our model to study the impacts on skill formation of proposals to switch from progressive taxes to flat income and consumption taxes. For the sake of brevity, we focus on steady states in this paper, although we study both transitions and steady states in our research.

PD May 1998. **TI** Evaluating the Welfare State. **AU** Heckman, James J.; Smith, Jeffrey A. **AA** Heckman: University of Chicago and National Bureau of Economic Research. Smith: University of Western Ontario and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6542; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 60. **PR** $5.00. **JE** C14, C93, D61, H43. **KW** Welfare State. Policy Evaluation. Econometric Estimators. Cost- Benefit Analysis.
AB A variety of criteria are relevant for evaluating alternative policies in democratic societies composed of persons with diverse values and perspectives. In this paper, we consider alternative criteria for evaluating the welfare state, and the data required to operationalize them. We examine sets of identifying assumptions that bound, or exactly produce, these alternative criteria given the availability of various types of data. We consider the economic questions addressed by two widely-used econometric evaluation estimators and relate them to the requirements of a comprehensive cost-benefit analysis. We present evidence on how the inference from the most commonly used econometric evaluation estimator is modified when the direct costs of a program are fully assessed, including the welfare costs of the taxes required to support the program. Finally, we present evidence of the empirical inconsistency of alternative criteria derived from evaluations based on "objective" outcomes, on self-selection and attrition decisions, and on self-reported evaluations from questionnaires when

applied to a prototypical job training program.

PD November 1998. **TI** Substitution and Dropout Bias in Social Experiments: A Study of an Influential Social Experiment. **AU** Heckman, James J.; Hohmann, Neil; Smith, Jeffrey A.; Khoo, Michael. **AA** Heckman, Hohmann, and Khoo: University of Chicago. Smith: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9819; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 30. **PR** $10.00 Canadian per paper. **JE** C14, C93, H43. **KW** Dropout Bias. Social Experiments. Substitution. Project Evaluation.
AB This paper considers the interpretation of results from social experiments when persons randomized out of the program being evaluated have good substitutes for it, and when persons randomized into the program drop out to pursue better alternatives. Using data on persons randomized into (or out of) a classroom training program, we document the empirical importance of substitution in the control group and dropping out in the treatment group. Evidence that one program is ineffective compared to close substitutes for it is not evidence that the type of service provided by all of the programs is ineffective, although that is the way the experimental evidence is often interpreted.

Heifetz, Aviad

PD August 1999. **TI** Arbitrage and Equilibrium with Exchangeable Risks. **AU** Heifetz, Aviad; Minelli, Enrico; Polemarchakis, Heracles M. **AA** Heifetz: Tel Aviv University. Minelli: Universita di Brescia, Italy. Polemarchakis: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9946; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 17. **PR** $100 per year. **JE** D52, D81, G12. **KW** Arbitrage. Exchangeability. Pricing Theory. Assets.
AB In an economy with a non-atomic measure space of assets and exchangeable risks, the Arbitrage Pricing Theory (APT) holds exactly; and factors are structurally specified, which allows for an economic interpretation.

TI Incentive Compatible Core and Competitive Equilibria in Differential Information Economies. **AU** Forges, Francoise; Heifetz, Aviad; Minelli, Enrico.

Heitfield, Erik

TI Monitoring, Moral Hazard, and Market Power: A Model of Bank Lending. **AU** Covitz, Daniel M.; Heitfield, Erik.

Helpman, Elhanan

PD May 1998. **TI** Adjusting to a New Technology: Experience and Training. **AU** Helpman, Elhanan; Rangel, Antonio. **AA** Helpman: Harvard University and National Bureau of Economic Research. Rangel: Stanford University. **SR** National Bureau of Economic Research Working Paper: 6551; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 41. **PR** $5.00. **JE** D24, E32, J24, O33. **KW** New Technology. Adjustment Mechanisms. Cyclical Adjustment. Experience and Education.
AB In this paper we study how aggregate output responds to the arrival of a new General Purpose Technology (GPT) by looking at adjustment mechanisms that operate through labor markets. We show that under a wide set of circumstances the arrival of a new GPT that raises long-run output can trigger a recession in the short-run. Furthermore, we characterize features of the GPT that produce a cyclical adjustment path. An initial recession occurs whenever a higher education level is required to operate the new GPT. But a recession can also occur when the new GPT has lower educational requirements. A cyclical adjustment path is more likely when inexperienced workers are less productive with the new technology and the faster productivity rises with experience in the new sector.

PD June 1998. **TI** Lobbying and Legislative Bargaining. **AU** Helpman, Elhanan; Persson, Torsten. **AA** Helpman: Harvard University and National Bureau of Economic Research. Persson: Stockholm University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6589; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D72, D78, E61. **KW** Lobbying. Legislative Bargaining. Policy Formation. Congressional Systems. Parliamentary Systems.
AB We examine the effects of the interaction between lobbying and legislative bargaining on policy formation. Two systems are considered: a U.S.-style congressional system and a European-style parliamentary system. First, we show that the policies generated are not intermediate between policies that would result from pure lobbying or from pure legislative bargaining. Second, we show that in congressional systems the resulting policies are strongly skewed in favor of the agenda-setter. In parliamentary systems they are skewed in favor of the coalition, but within the coalition there are many possible outcomes (there are multiple equilibria) with the agenda-setter having no particular advantage. Third, we show that equilibrium contributions are very small, despite the fact that lobbying has a marked effect on policies.

TI Incomplete Contracts and Industrial Organization. **AU** Grossman, Gene A.; Helpman, Elhanan.

Henckel, Timo

PD July 1999. **TI** Central Banking Without Central Bank Money. **AU** Henckel, Timo; Ize, Alain; Kovanen, Arto. **AA** Henckel: London School of Economics. Ize and Kovanen: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/92; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 39. **PR** not available. **JE** E52, E58. **KW** Monetary Operations. Payment System. Inflation Targeting. Central Banks. Base Money.
AB Given the rapidly declining demand for central bank reserves and their gradual replacement in wholesale payments by alternative forms of money -- clearinghouse money and treasury money -- this paper discusses whether the complete extinction of base money could undermine monetary control. It argues that such concerns are misplaced since central banks can target interest rates and inflation even in the absence of base money. The paper explores implications for current and future central banking, including monetary and foreign exchange operations, lender of last resort, coordination between public debt and monetary management, and design of operating rules

in currency boards.

Hendel, Igal

PD May 1998. **TI** The Role of Leasing under Adverse Selection. **AU** Hendel, Igal; Lizzeri, Alessandro. **AA** Hendel: Princeton University and and National Bureau of Economic Research. Lizzeri: Princeton University. **SR** National Bureau of Economic Research Working Paper: 6577; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D82, L13, L14, L15. **KW** Leasing. Asymmetric Information. Adverse Selection. Market Power.

AB Leasing contracts specify a rental rate and an option price at which the used good can be bought at the termination of the lease. This option price cannot be controlled when the car is sold. The authors show that in a world with symmetric information this additional control variable is useless; equilibrium allocations and profits to lessors are unaffected by the option prices. Under adverse selection, leasing contracts affect equilibrium allocations in a way that matches observed behavior in the car market. The authors show that a social planner can use leasing contracts to improve welfare. Also, a producer with market power can benefit from leasing contracts for two reasons: better pricing of the option of keeping the used good, and market segmentation. Moreover, despite the fact that lessors could structure contracts to prevent adverse selection, the authors show that this is not in their interest.

Henderson, Vernon

TI Urban Evolution in the USA. **AU** Black, Duncan; Henderson, Vernon.

PD September 1998. **TI** Evidence on Scale Economies and Agglomeration. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 98/22; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 32. **PR** no charge. **JE** D62, L11, R12, R30, O18. **KW** Scale Economies. Externalities. Agglomeration. Urban Evolution. Urban Development.

AB This paper addresses two interrelated controversies. The first concerns the nature and magnitude of scale externalities and poses the following two questions. First, are externalities static or dynamic? Second, are externalities Marshall-Allen-Romer or localization ones which are dependent just on local own-industry activity; or are they Jacobs or urbanization ones dependent on overall local urban scale and/or diversity (a key issue in analyzing industrial composition and development of cities)? The paper examines sources of externalities and what measures best capture externalities and what are the implications for urban development of different externality sources. The second controversy concerns the determinants of local industrial agglomerations, the evolution of these agglomerations, and changes in the extent of agglomerations over time. Are industries subject to greater scale externalities more agglomerated and less mobile? Have these patterns changed over the last three decades of technological change and are changes related to alterations in externalities?.

Henry De Frahan, Bruno

TI Co-Integration and Leadership in the European Off-Season Fresh Fruit Market. **AU** Giot, Pierre; Henry De Frahan, Bruno; Pirotte, Nicolas.

Hercowitz, Zvi

PD March 1999. **TI** A Macroeconomic Experiment in Mass Immigration. **AU** Hercowitz, Zvi; Yashiv, Eran. **AA** Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 15/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 25. **PR** no charge. **JE** E24, F22, F41, J61. **KW** Immigration. Employment. Open Economy. Israel.

AB The paper studies the effects of mass immigration from the former USSR to Israel in the 1990's on the employment of the native-born. The exogeneity and the size of this inflow make it a "natural experiment" of macroeconomic proportions. An open-economy model is used to analyze this experience, focusing on the differential entry of immigrants into the labor and goods markets and the ensuing dynamic implications for labor demand. The reduced form of the model -- consisting of two equations for native employment and the relative price of domestic goods -- is estimated, finding negative effects of immigration on native employment a year and a half after arrival.

Hernandez-Cata, Ernesto

PD May 1999. **TI** Price Liberalization, Money Growth, and Inflation During the Transition to a Market Economy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/76; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 22. **PR** not available. **JE** E31, E41, E51, O17, P22. **KW** Liberalization. Price Decontrol. Money. Transition Economies. Inflation.

AB This paper examines the influence of economic liberalization and monetary growth on inflation during the transition from central plan to market. It concludes that price decontrol had a substantial, one-time effect on the price level but no lasting effect on inflation; that economic liberalization broadly defined may have helped dampen price increases; and that monetary expansion has been the fundamental determinant of inflation in the region. The paper also finds that the intensity of liberalization has been related to geographic proximity to market economies, to the size of the underground economy, and to the degree of political reform.

Heshmati, Almas

TI The Dynamics of Capital Structure. **AU** Banerjee, Saugata; Heshmati, Almas; Wihlborg, Clas.

Higgins, Stephen T.

PD March 1998. **TI** Applying Behavioral Economics to the Challenge of Reducing Cocaine Abuse. **AA** University of Vermont. **SR** National Bureau of Economic Research Working Paper: 6487; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 23. **PR** $5.00. **JE** D11, I12, I18, L65. **KW** Cocaine Abuse. Drug Use. Behavioral Economics. Reinforcement.

AB This paper focuses on potential contributions of behavioral economics to reducing cocaine abuse. More specifically, this paper underscores the fundamental role of reinforcement in the genesis and maintenance of cocaine use and explores how reinforcement and consumer-demand theory might be translated into effective strategies for reducing cocaine use. A broad range of relevant research findings are discussed, including pre-clinical studies conducted with laboratory animals, laboratory and treatment-outcome studies conducted with cocaine abusers, and large epidemiological studies conducted with national samples of the U.S. population.

Hohmann, Neil

TI Substitution and Dropout Bias in Social Experiments: A Study of an Influential Social Experiment. **AU** Heckman, James J.; Hohmann, Neil; Smith, Jeffrey A.; Khoo, Michael.

Holderness, Clifford G.

PD May 1998. **TI** Were the Good Old Days that Good? Changes in Managerial Stock Ownership Since the Great Depression. **AU** Holderness, Clifford G.; Kroszner, Randall S.; Sheehan, Dennis P. **AA** Holderness: Boston College. Kroszner: University of Chicago and National Bureau of Economic Research. Sheehan: Pennsylvania State University. **SR** National Bureau of Economic Research Working Paper: 6550; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 37. **PR** $5.00. **JE** G32, G34, N22, N82. **KW** Managerial Ownership. Corporate Governance. Volatility. Hedging Opportunities.

AB We document ownership by officers and directors of publicly-traded firms is on average higher today than earlier in the century. Managerial ownership rises from 13 percent for the universe of exchange-listed corporations in 1935, the earliest year for which such data exist, to 21 percent in 1995. We examine in detail the robustness of the increase and explore hypotheses to explain it. Higher managerial ownership has not substituted for alternative corporate governance mechanisms. Lower volatility and greater hedging opportunities associated with the development of financial markets appear to be important factors explaining the increase in managerial ownership.

Holtz-Eakin, Douglas

TI Income Taxes and Entrepreneurs' Use of Labor. **AU** Carroll, Robert; Holtz-Eakin, Douglas; Rider, Mark; Rosen, Harvey S.

Holzer, Harry J.

PD June 1998. **TI** What Does Affirmative Action Do? **AU** Holzer, Harry J.; Neumark, David. **AA** Holzer: Michigan State University. Neumark: Michigan State University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6605; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** J15, J16, J18, J78. **KW** Affirmative Action. Recruitment. Labor Markets. Employment. Discrimination.

AB We use data from a survey of employers to investigate how Affirmative Action in recruiting and hiring influences hiring practices, personnel policies, and ultimately employment outcomes. Our results show that Affirmative Action increases the number of recruitment and screening practices used by employers, raises their willingness to hire stigmatized applicants, increases the number of minority or female applicants as well as employers' tendencies to provide training and to formally evaluate employees. When Affirmative Action is used in recruiting, it does not lead to lower credentials or performance of women and minorities hired. When it is also used in hiring, it yields female and minority employees whose credentials are somewhat weaker, though performance generally is not. Overall, the more intensive search, evaluation, and training that accompany Affirmative Action appear to offset any tendencies of the policy to lead to hiring of less-qualified or less-productive women and minorities.

Hong, Harrison

PD May 1998. **TI** Bad News Travels Slowly: Size, Analyst Coverage and the Profitability of Momentum Strategies. **AU** Hong, Harrison; Lim, Terrence; Stein, Jeremy C. **AA** Hong: Stanford University. Lim: Massachusetts Institute of Technology. Stein: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6553; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D82, G12, G14. **KW** Momentum Strategies. Information Diffusion. Firm Size. Analyst Coverage.

AB A number of theories have been proposed to explain the medium-term momentum in stock returns identified by Jegadeesh and Titman (1993). We test one such theory -- based on the gradual-information-diffusion model of Hong and Stein (1997) - and establish three key results. First, once one moves past the very smallest stocks (where thin market-making capacity appears to be an issue) the profitability of momentum strategies declines sharply with firm size. Second, holding size fixed, momentum strategies work particularly well among stocks which have low analyst coverage. Finally, there is a strong asymmetry: the effect of analyst coverage is much more pronounced for stocks that are past losers than for stocks that are past winners. These findings are consistent with the hypothesis that firm-specific information, especially negative information, diffuses only gradually across the investing public.

Hooker, Mark A.

PD August 1996. **TI** The Maturity Structure of Term Premia with Time-Varying Expected Returns. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/04; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 19. **PR** No charge. **JE** E43, G12. **KW** Term Structure. Time-Varying Returns. Liquidity Preference. Expected Returns. Asset Pricing.

AB This paper analyzes the maturity structure of term premia using McCulloch's U.S. Treasury yield curve data from 1953-91, allowing expected returns to vary across time. One-, three-, six-, and twelve- month holding period returns on maturities up to five years are projected on three ex ante variables to compute time-varying expected returns, and simulations are employed to evaluate econometrically nonstandard constraints. The likelihood of expected returns monotonically increasing in maturity (as implied by the liquidity preference hypothesis) is found to vary systematically across values of the ex ante variables and by holding period. Monotonicity is associated primarily with a steep yield curve, high interest rates, and longer holding periods, while the hypothesis that nonmonotonic (hump-shaped) maturity-return profiles are correlated with the onset of recessions does not receive much support.

Hougaard, Jens Leth

PD December 1998. **TI** Nonconvex n-Person Bargaining: Efficient Maxmin Solutions. **AU** Hougaard, Jens Leth; Tvede, Mich. **AA** Haugaard: Copenhagen Business School. Tvede: University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/20; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 17. **PR** Free. **JE** C78. **KW** Nonconvex Bargaining. Kalai-Smorodinsky Solution. Efficient Maxmin Solution. Bargaining Theory.

AB This paper provides an axiomatic characterization of a family of so- called efficient maxmin solutions which can be seen as generalizations of the Kalai-Smorodinsky solution to nonconvex n-person bargaining problems. Moreover, it is shown that even though there are several efficient maxmin solutions for some bargaining problems, there is typically a unique efficient maxmin solution.

PD December 1998. **TI** The Kalai-Smorodinsky Solution: A Generalization to Nonconvex n- Person Bargaining. **AU** Hougaard, Jens Leth; Tvede, Mich. **AA** Hougaard: Copenhagen Business School. Tvede: University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/21; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 5. **PR** Free. **JE** C78. **KW** Nonconvex Bargaining. Kalai-Smorodinsky Solution. Bargaining Theory.

AB In the present paper a generalization of the Kalai-Smorodinsky solution to nonconvex n-person bargaining problems is provided. The generalization is obtained by a slight weakening of the axioms used in Kalai-Smorodinsky (1975) and Roth (1980).

Hsieh, Fushing

TI Undersmoothing and Bias Corrected Functional Estimation. **AU** Newey, Whitney K.; Hsieh, Fushing; Robins, James.

Hubbard, R. Glenn

PD April 1998. **TI** A Re-Examination of the Conglomerate Merger Wave in the 1960's: An Internal Capital Markets View. **AU** Hubbard, R. Glenn; Palia, Darius. **AA** Hubbard: Columbia University and National Bureau of Economic Research. Palia: Columbia University. **SR** National Bureau of Economic Research Working Paper: 6539; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 25. **PR** $5.00. **JE** G31, G34. **KW** Mergers. Internal Financing. Capital Markets. Diversifying Acquisitions.

AB One possible explanation that bidding firms earned positive abnormal returns in diversifying acquisitions in the 1960's is that internal capital markets were expected to overcome the information deficiencies of the less developed capital markets. Examining 392 bidder firms during the 1960's, we find the highest bidder returns when financially "unconstrained" buyers acquire "constrained" targets. This result holds while controlling for merger terms and for different proxies used to classify firms facing costly external financing. We also find that bidders generally retain target management, suggesting that management may have provided company-specific operational information, while the bidder provided capital-budgeting expertise.

Hubbard, Thomas N.

PD March 1998. **TI** Why are Process Monitoring Technologies Valuable? The Use of On-Board Information Technology in the Trucking Industry. **AA** University of California, Los Angeles and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6482; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 27. **PR** $5.00. **JE** D24, L22, L92, O33. **KW** Information Technology. Process Monitoring. Trucking Industry. Supply Chains.

AB Recent advances in information technology (IT) have enabled firms in many industries to give middle managers new access to timely production data. "Process monitoring" technologies give distant managers a window to production which can both lower their cost of monitoring subordinates and provide them better information toward allocating their firms' resources in the short term. This paper investigates where and why IT- based process monitoring is valuable within the trucking industry, distinguishing between its incentive- and coordination-related benefits. Using truck-level data, it examines how the use of on-board computers varies with characteristics of carriers, shippers, and hauls. It then analyzes these patterns in light of existing theory and relates them to how supply chains are organized.

Hunt, Robert M.

PD March 1999. **TI** Nonobviousness and the Incentive to Innovate: An Economic Analysis of Intellectual Property Reform. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/03; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 39. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** K20, O31, O32, O34. **KW** Innovation. Research and Development. Intellectual Property. Patent Law.

AB U.S. patent law protects only inventions that are nontrivial advances of the prior art. The legal requirement is called nonobviousness. During the 1980s, the courts relaxed the nonobviousness requirement for all inventions, and a new form of intellectual property, with a weaker nonobviouness requirement, was created for semiconductor designs. Supporters of these changes argue that a less stringent nonobviousness requirement encourages private research and development (R&D) by increasing the probability that the resulting discoveries will be protected from imitation. This paper demonstrates that relaxing the standard of nonobviousness creates a tradeoff -- raising the probability of obtaining a patent, but decreasing its value. We show that weaker nonobviousness requirements can lead to less R&D activity, and this is more likely to occur in industries that rapidly innovate.

Hussain, Qaizar

PD October 1999. **TI** Corporate Insolvency Procedures and Bank Behavior: A Study of Selected Asian Economies. **AU** Hussain, Qaizar; Wihlborg, Clas. **AA** Hussain: International Monetary Fund. Wihlborg: University of

Gothenburg. **SR** New York University, Salomon Center Working Paper: S/99/28; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 43. **PR** $5.00 each; $100.00 yearly subscription. **JE** G21, G32, G33, K40, P52. **KW** Insolvency Procedures. Bankruptcy. Capital Structure. Shareholder Concentration. Asian Crisis.

AB This paper explores insolvency and debt recovery procedures, and political, legal, and institutional factors influencing financial decisions of corporations and banks during pre-crisis years in six Asian economies. It also examines whether these factors may have contributed to the depth and duration of the 1997 crisis. There are two key findings: First, bank behavior and other institutional factors, and not the nature of stakeholder orientation, seem to explain variations in capital structures and the depth of recessions across economies. Second, aspects of insolvency procedures favoring rehabilitation of "financially distressed" firms seem to explain well the expected duration of the crisis.

Hvide, Hans K.

PD February 1999. **TI** Bounds to Memory Loss. **AA** Norwegian School of Economics and Business (LOS) and Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 11/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 22. **PR** no charge. **JE** C70, D83. **KW** Bounded Rationality. Epistemic Logic. Imperfect Recall. Memory Loss.

AB If we express our knowledge in sentences, we will find that these sentences to some extent are linked by logical rules. We asked whether the structure logic imposes on knowledge restricts what we forget and what we remember. The model is a two period S5-style modal logic. In this logic we propose a memory loss operator: The agent forgets a sentence p if and only if he knows p at time 1 and he does not know p at time 2. Equipped with the operator, we prove theorems on the relation between knowledge and memory loss. The main results point to classes of formulas that an agent cannot forget, and classes of formulas he must forget. A desirable feature is that most results hold in the S4 logic. The results illustrate bounds to memory loss, and thus to bounded rationality. We apply the model to single-event conventions: Conventions made between an agent and himself.

PD September 1999. **TI** Tournament Rewards and Risk Taking. **AA** Norwegian School of Economics and Business (LOS) and Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 32/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 19. **PR** no charge. **JE** C72, D29, G23, J41. **KW** Contest. Risk Taking. Relative Performance. Tournament.

AB I consider two seemingly unrelated puzzles; 1. Why is relative performance evaluation (RPE) used less in CEO compensation than agency theory suggests? 2. Why is sometimes, e.g., for fund managers, a mediocre performance more highly rewarded than excellence? I consider a simple tournament model, where agents can influence the spread of output in addition to its mean. I show that standard tournament rewards induce risky and lazy behavior from the agents. This finding sheds light on Puzzle 1. Second, I consider a scheme that ranks agents according to their relative closeness to a benchmark k. I show that there exist intermediate values of k such that the risky-lazy problem of the standard tournament can be mitigated. The result sheds light on Puzzle 2.

Iannantuoni, Giovanna

PD May 1999. **TI** Subgame Perfection in a "Divided Government" Model. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9928; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 6. **PR** $100 per year. **JE** C72, D72, D73. **KW** Subgame Perfection. Iterated Dominance. Backward Induction. Divided Government.

AB Purely non-cooperative principles, as iterated dominance and backward induction, explain divided government.

PD December 1999. **TI** Divided Government and Dominance Solvability. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9965; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 12. **PR** $100 per year. **JE** C72, D72. **KW** Spatial Theory. Voting. Nash Equilibrium. Backward Induction.

AB Using the spatial theory of voting, this paper describes an institutional structure where there are two branches of the government: the executive, elected by plurality rule, and the legislative elected by proportional rule. The resulting policy outcome is described through a compromise between these two branches. The parties announce their position on a policy issue and then voters vote. We prove the uniqueness of Nash equilibrium in the subgame, where the election of the president is known. Moreover, this equilibrium can be obtained by the process of iterated elimination of dominated strategies. We then solve the whole game by backward induction. Furthermore, the policy outcome at equilibrium of the two-stage game is the same of the simultaneous game, where voters simultaneously choose the two branches. The results suggest a moderate behavior of the voters, basically due to the will to balance the policy outcome.

Inman, Robert P.

PD May 1998. **TI** Subsidiarity and the European Union. **AU** Inman, Robert P.; Rubinfeld, Daniel L. **AA** Inman: University of Pennsylvania and National Bureau of Economic Research. Rubinfeld: University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 6556; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 21. **PR** $5.00. **JE** D72, F42, H11, H77. **KW** European Union. Democratic Federalism. Subsidiarity. Fiscal Policy.

AB The European Union is at a crossroads. At issue will be each of the three decisions which define a federal constitution: the number of participating governments, the assignment of policy responsibilities to the new EMU, and the representation of local interests in, and the decision-making rules for, the Union. Subsidiarity is to be the guiding principle. This essay reviews three alternative models of subsidiarity -- decentralized federalism, centralized federalism, and democratic federalism -- and argues that current European Economic Community has evolved from decentralized to centralized to a fully democratic federalist state. The structure of EMU governance is in place and it closely resembles that of the United States: an institutionally weak executive, a country-specific Council of Ministers and a locally representative Parliament. The remaining issues to be decided are the number of participating members and the assignment of policy responsibilities to levels of government. A large Union with significant fiscal policy responsibilities is likely to replicate U.S. economic policy performance.

Isard, Peter

PD May 1999. **TI** Simple Monetary Policy Rules Under Model Uncertainty. **AU** Isard, Peter; Laxton, Douglas; Eliasson, Ann-Charlotte. **AA** Isard and Douglas: International Monetary Fund. Eliasson: Stockholm School of Economics. **SR** International Monetary Fund Working Paper: WP/99/75; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 55. **PR** not available. **JE** E17, E31, E52. **KW** Monetary Policy. NAIRU Uncertainty. Interest Rates. Macroeconomic Models.

AB Using stochastic simulations and stability analysis, the paper compares how different monetary rules perform in a moderately nonlinear model with a time-varying nonaccelerating-in flation-rate-of-unemployment (NAIRU). Rules that perform well in linear models but implicitly embody backward-looking measures of real interest rates (such as conventional Taylor rules) or substantial interest rate smoothing perform very poorly in models with moderate nonlinearities, particularly when policymakers tend to make serially correlated errors in estimating the NAIRU. This challenges the practice of evaluating rules within linear models, in which the consequences of responding myopically to significant overheating are extremely unrealistic.

Ito, Harumi

TI Sticky Prices, Coordination and Collision. **AU** Driscoll, John C.; Ito, Harumi.

Iwata, Satoru

TI A Faster Capacity Scaling Algorithm For Minimum Cost Submodular Flow. **AU** Fleischer, Lisa; Iwata, Satoru; McCormick, Thomas S.

PD August 1999. **TI** A Strongly Polynomial-Time Algorithm For Minimizing Submodular Functions. **AU** Iwata, Satoru; Fleischer, Lisa; Fujishige, Satoru. **AA** Iwata and Fujishige: Osaka University, Japan. Fleischer: Columbia University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9948; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 14. **PR** $100 per year. **JE** C44, C61. **KW** Submodular Function. Combinatorial Optimization. Strongly Polynomial. Time Algorithm.

AB This paper presents a combinatorial polynomial-time algorithm for minimizing submodular set functions. The algorithm employs a scaling scheme that uses a flow in the complete directed graph on the underlying set with each arc capacity equal to the scaled parameter. The resulting algorithm runs in time bounded by a polynomial in the size of the underlying set and the largest length of the function value. The paper also presents a strongly polynomial-time version that runs in time bounded by a polynomial in the size of the underlying set independent of the function value. These are the first combinatorial algorithms for submodular function minimization that run in (strongly) polynomial time.

Ize, Alain

TI Central Banking Without Central Bank Money. **AU** Henckel, Timo; Ize, Alain; Kovanen, Arto.

Jackson, Matthew O.

TI Strategic Candidacy and Voting Procedures. **AU** Dutta, Bhaskar; Jackson, Matthew O.; Le Breton, Michel.

Jacobsen, Hans Jorgen

TI Duration Dependent Unemployment Benefits in Trade Union Theory. **AU** Hansen, Claus Thustrup; Jacobsen, Hans Jorgen.

PD September 1998. **TI** Endogenous Firms and Endogenous Business Cycles. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/15; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 21. **PR** Free. **JE** D43, E10, E32, L11, L13. **KW** Endogenous Fluctuations. Imperfect Competition. Endogenous Firms. Love of Variety. Endogenous Markups.

AB The paper is concerned with the implications of imperfect competition and endogenous determination of the number of firms for endogenous fluctuations in the simple overlapping generations model. If firms have market power on output markets and there is free entry, such that the number of firms is endogenous and variable, then two effects should be taken into account: the love of variety effect and the endogenous markup effect. Our main conclusions are: (i) both effects contribute positively to the occurrence of endogenous fluctuations around a single and unique steady state by relaxing the condition for cycles as compared to the condition in competitive models, and (ii) both effects contribute to create certain realistic features concerning the comovement of output, prices and wages over the endogenous cycle.

PD January 1999. **TI** Evolutionary Learning in Signaling Games. **AU** Jacobsen, Hans Jorgen; Jensen, Mogens; Sloth, Birgitte. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 99/01; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 30. **PR** Free. **JE** C72, D82, D83. **KW** Signaling Games. Intuitive Criterion. Riley Equilibrium. Evolutionary Learning. Separating Equilibrium.

AB This paper studies equilibrium selection by evolutionary learning in monotone signaling games. The learning process is a development of that introduced by Young for static games extended to deal with incomplete information and sequential moves; it thus involves stochastic trembles. For vanishing trembles the process gives rise to strong selection among sequential equilibria. If the game has separating equilibria, then in the long run only play according to a specific separating equilibrium, the so-called Riley equilibrium, will be observed frequently. Also, if the game has no separating equilibrium, a particular behavior will emerge as the only one observed frequently in the long run. It may or may not correspond to a pooling equilibrium, but if it does, it is to one where both types of sender choose the signal that is best for the "high" type when all signals are responded to as if they came from the "low" type.

Jadresic, Esteban

PD May 1999. **TI** Sticky Prices: An Empirical Assessment of Alternative Models. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/72; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 25. **PR** not available. **JE** E31, E37. **KW** Sticky Prices. Staggered Price Setting. Inflation. United States.

AB This paper presents a model of staggered price setting that allows for a flexible distribution of the durations of the prices underlying aggregate price behavior, and estimates it with U.S. data. When tested against an unrestricted version of this model, standard models of sticky prices are rejected. In contrast, a stylized model that assumes a trimodal distribution of price durations--with clusters on the first, fourth, and eighth quarter after prices are set -- easily passes the same test. In addition, this model is able to replicate the dynamic behavior of inflation and output found in the data.

Jaffe, Adam B.

PD April 1998. **TI** International Knowledge Flows: Evidence from Patent Citations. **AU** Jaffe, Adam B.; Trajtenberg, Manuel. **AA** Jaffe: Brandeis University and National Bureau of Economic Research. Trajtenberg: Tel-Aviv University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6507; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** F02, O31, O34. **KW** Patents. Patent Citations. Knowledge Flows.

AB This paper explores the patterns of citations among patents taken out by inventors in the U.S., the U.K., France, Germany and Japan. We find (1) patents assigned to the same firm are more likely to cite each other, and come sooner than other citations; (2) patents in the same patent class are approximately 100 times as likely to cite each other as patents from different patent classes, but there is not a strong time pattern to this effect; (3) patents whose inventors reside in the same country are typically 30 to 80 percent more likely to cite each other than inventors from other countries, and these citations come sooner; and (4) there are clear country-specific citation tendencies; e.g., Japanese citations typically come sooner than those of other countries.

James, John A.

TI Consumption Smoothing Among Working-Class American Families Before Social Insurance. **AU** Palumbo, Michael G.; James, John A.; Thomas, Mark.

Jansen, Marion

PD November 1998. **TI** Job Creation, Job Destruction, and the International Division of Labour. **AU** Jansen, Marion; Turrini, Alessandro. **AA** Jansen: Pompeu Fabra University, Barcelona and Maxwell Stamp. Turinni: University of Bergamo, Cespri-Bocconi, Milan and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9864; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 21. **PR** $100 per year. **JE** F12, F15, J41, J64. **KW** Job Creation. Job Destruction. Unemployment. International Trade.

AB We incorporate equilibrium unemployment due to imperfect matching into a model of trade in intermediate inputs (Ethier (1982)). Firms are assumed to be price takers and their size is given by technology. Firms enter the market as long as expected profits cover the search cost they incur initially. Trade increases productivity in the final good and then demand for each intermediate input. Steady state unemployment is reduced after trade integration because more vacancies are opened. When the rate of job destruction is made endogenous, international trade reduces the equilibrium rate of job destruction, and this induces an indirect positive effect on job creation. We also show that the more volatile environment faced by firms that is often associated with deeper trader integration is unlikely, per-se, to increase unemployment.

Jappelli, Tullio

TI Intertemporal Choice and Cross-Sectional Variance of Marginal Utility. **AU** Attanasio, Orazio P.; Jappelli, Tullio.

TI The Demand for Money, Financial Innovation, and the Welfare Cost of Inflation: An Analysis with Households' Data. **AU** Attanasio, Orazio P.; Jappelli, Tullio; Guiso, Luigi.

Jarvis, Chris

PD July 1999. **TI** The Rise and Fall of the Pyramid Schemes in Albania. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/98; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 35. **PR** not available. **JE** E44, E65, G14, G18, O16. **KW** Pyramid Schemes. Ponzi Schemes. Financial Markets. Albania.

AB What lessons can be drawn from the unprecedented growth and spectacular collapse of financial pyramid schemes in Albania? This paper discusses the origins of the pyramid schemes and the way the authorities handled them. It also analyzes the economic effects of the pyramid schemes, concluding that despite the descent into anarchy triggered by the schemes' collapse their direct effects on the economy are difficult to specify and appear to have been limited. Finally, the paper argues that prevention of pyramid schemes is better than cure, and that governments and international financial institutions should be vigilant in clamping down on frauds.

Jean, Sebastien

TI Quel est l'Impact du Commerce Exterieur sur la Productivite et L'Emploi? Une Analyse Comparee des cas de la France, de l'Allemagne et des Etats-Unis. **AU** Cortes, Olivier; Jean, Sebastien.

PD September 1998. **TI** Sensibilite des Salaires Relatifs Aux Chocs Exogenes de Commerce International et de Progres Technique: Une Evaluation d'Equilibre General. **AU** Jean, Sebastien; Bontout, Olivier. **AA** CEPII. **SR** CEPII Working Paper: 98/09; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 41. **PR** Free. **JE** D58, F12, J31, O33. **KW** International Trade. Technological Change. Skill. Relative Wages. General Equilibrium.

AB This paper assesses the sensitivity of relative wages to shocks of international trade, skill-biased technical progress and skill upgrading. This is done using a general equilibrium model, compatible with the new trade theories, which takes into account the endogenous effect of international trade on sector representative production functions. In such a context and under flexible wages, we show that skill-biased technical progress and North-South trade create more inequalities with respect to welfare gains. Sector-biased technical change and North-North trade can also significantly increase skilled relative wages. A detailed assessment is made of the impact of these different shocks. Special attention is paid to the possible determinants of the sensitivity of the impacts on relative wages: substitutability between goods and production factors, possible data problems, nature of the shocks.

Jeanne, Olivier

PD July 1997. **TI** The Persistence of Unemployment Under a Fixed Exchange Rate Peg. **AA** University of California, Berkeley and CERAS. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/093; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 33. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E24, E44, F31, F33. **KW** Unemployment. Exchange Rates. Currency Crises. Monetary Systems. European Union.

AB This paper studies the dynamics of unemployment under a fixed exchange rate peg with an escape clause. The interesting aspects of these dynamics come from the interaction between unemployment and the devaluation expectations. While an increase in the unemployment rate raises the devaluation expectations, reciprocally the latter influence the unemployment rate through the level of interest rates. We present a model in which this interaction tends to increase the level and the persistence of unemployment, and can even generate some hysteresis in the unemployment dynamics that is associated with a currency crisis. The estimation of the model in the case of the French franc sheds new light on the franc crisis of 1992-93, as well as the franc fort policy and the convergence criteria of the Maastricht Treaty.

PD October 1997. **TI** Was the French Franc Crisis a Sunspot Equilibrium? **AU** Jeanne, Olivier; Masson, Paul. **AA** Jeanne: University of California, Berkeley and CERAS. Masson: International Monetary Fund. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/095; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 23. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E44, E52, F31, F32, F40. **KW** Currency Crises. Speculation. Sunspot Equilibria. France. Exchange Rates.

AB This paper examines the extent to which speculation against the French franc in 1992-93 was motivated by the fundamentals or resulted from a sunspot phenomenon. We develop a model of currency crises which encompasses both hypotheses about the origin of speculation. The estimation shows that the model with sunspots not only better tracks the episodes of speculation, but also gives a better account of the relationship between the fundamentals and the devaluation expectations.

TI Currency Crisis and Unemployment: Sterling in 1931. **AU** Eichengreen, Barry; Jeanne, Olivier.

Jensen, J. Bradford

TI Understanding Increasing and Decreasing Wage Inequality. **AU** Bernard, Andrew B.; Jensen, J. Bradford.

Jensen, Mogens

TI Evolutionary Learning in Signaling Games. **AU** Jacobsen, Hans Jorgen; Jensen, Mogens; Sloth, Birgitte.

Jermann, Urban J.

TI Asset Pricing When Risk Sharing is Limited by Default. **AU** Alvarez, Fernando; Jermann, Urban J.

TI Quantitative Asset Pricing Implications of Endogenous Solvency Constraints. **AU** Alvarez, Fernando; Jermann, Urban J.

Jinyong, Hahn

PD May 1999. **TI** A New Specification Test for the Validity of Instrumental Variables. **AU** Jinyong, Hahn; Hausman, Jerry. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/11; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 61. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C30, C52. **KW** Specification Tests. Simultaneous Equations. Two-Stage Least Squares. LIML.

AB This paper develops a new specification test for the IV estimators adopting a particular second order approximation of Bekker (1994). The new specification test compares the difference of the forward (conventional) 2SLS estimator of the coefficient of the right hand side endogenous variable with the reverse 2SLS estimator of the same unknown parameter when the normalization is changed. Under the null hypothesis that conventional first order asymptotics provides a reliable guide, the two estimates should be very similar. The authors' test sees whether the resulting difference in the two estimates satisfies the results of second order asymptotic theory. Essentially the same idea is applied to develop another new specification test using second-order unbiased estimators of the type first proposed by Nagar (1959). The authors also demonstrate the high degree of similarity for k-class estimators between the approach of Bekker (1994) and the Edgeworth expansion approach of Rothenberg (1983).

Jolls, Christine

PD March 1998. **TI** Stock Repurchases and Incentive Compensation. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6467; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 28. **PR** $5.00. **JE** G30, G35, J33. **KW** Compensation Packages. Earnings Distribution. Stock Repurchases. Stock Options.

AB A longstanding puzzle in corporate finance is the rise of stock repurchases as a means of distributing earnings to shareholders. While most attempts to explain repurchase behavior focus on the incentives of firms, this paper focuses on the incentives of the agents who run firms, as determined by those agents' compensation packages. The increased use of repurchases coincided with an increasing reliance on stock options to compensate top managers, and stock options encourage managers to choose repurchases over conventional dividend payments because repurchases, unlike dividends, do not dilute the per-share value of the stock. Consistent with the stock option hypothesis, I find that firms which rely heavily on stock-option-based compensation are significantly more likely to repurchase their stock than firms which rely less heavily on stock options to compensate their top executives. I find no such relationship between repurchases and restricted stock, an alternative form of stock-based compensation that, unlike stock options, is not diluted by dividend payments. These findings have implications for the study of other puzzles concerning firms' payout behavior, and for the study of the effects of executive compensation packages on managerial incentives.

Jones, Charles I.

TI Why Do Some Countries Produce So Much More Output per Worker than Others? **AU** Hall, Robert E.; Jones, Charles I.

Jones, Matthew T.

PD July 1999. **TI** Saving, Investment, and Gold: A Reassessment of Historical Current Account Data. **AU** Jones, Matthew T.; Obstfeld, Maurice. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/094; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 28. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E22, F21, F32, F33, N20. **KW** Current Account. Gold Standard. Feldstein-Horioka. Saving. Investment.

AB This paper revises pre-World War II current account data for thirteen countries by treating gold flows on a consistent basis. The standard historical data sources often fail to distinguish between monetary gold exports, which are capital-account credits, and non-monetary gold exports, which are current-account credits. The paper also adjusts historical investment data to account for changes in inventories. The revised data are used to construct estimates of saving and investment over the period from 1850 to 1945. The methodology for removing monetary gold flows from the current account leads naturally to a gold-standard version of the Feldstein-Horioka hypothesis on capital mobility. The regression results are in broad agreement with those of Eichengreen, who found a significantly positive cross-sectional correlation between savings and investment even during some periods when the gold standard prevailed. The authors estimate correlations between saving and investment that are somewhat lower and less significant than Eichengreen's.

Jordan, John S.

PD February 1999. **TI** The Impact of Greater Bank Disclosure Amidst a Banking Crisis. **AU** Jordan, John S.; Peek, Joe; Rosengren, Eric S. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 99/01; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 29. **PR** No charge. **JE** E44, G21, G28. **KW** Disclosure. Transparency. Bank Regulation. Banking Crises.

AB Banking crises have continued to emerge in recent years, contributing to severe economic contractions in Japan, Russia, and Southeast Asia. In response, international organizations have advocated enhanced market discipline, encouraging countries to improve bank disclosure policies. Despite these recommendations, most countries have failed to improve disclosure. One reason so little progress has been made is that neither the proponents nor the opponents of enhanced disclosure policies have persuasive empirical evidence to support their views on potential costs and benefits of such a policy. This paper fills that gap by examining the impact of requiring the release of supervisory information on troubled U.S. banks during a severe banking crisis. The authors find that improving disclosure at troubled U.S. banks during the banking crisis was not destabilizing and did provide conditions for market discipline to work more effectively. These findings support the public policy proposal of enhanced bank disclosure.

Kaarboe, Oddvar M.

TI Equilibrium Selection and the Rate of Convergence in Coordination Games with Simultaneous Play. **AU** Hansen, Per Svejstrup; Kaarboe, Oddvar M.

Kaestner, Robert

TI Medicaid Expansions and the Crowding Out of Private Health Insurance. **AU** Yazici, Esel Y.; Kaestner, Robert.

Kalemli-Ozcan, Sebnem

PD April 1999. **TI** Risk Sharing and Industrial Specialization: Regional and International Evidence. **AU** Kalemli-Ozcan, Sebnem; Sorensen, Bent E.; Yosha, Oved. **AA** Kalemli-Ozcan and Sorensen: Brown University. Yosha: Tel Aviv University. **SR** Brown University Department of Economics Working Paper: 99/16; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 47. **PR** no charge. **JE** F15, F21, F36, F43, L23. **KW** Specialization. Capital Markets. Economic Integration. Comparative Advantage. Income Smoothing.

AB The authors provide empirical evidence that risk sharing enhances specialization in production. The empirical procedure is summarized as follows. First, the authors construct a measure of specialization in production, and calculate the index of specialization for each of the European Community (EC) and non-EC OECD countries, U.S. states, Canadian provinces, Japanese prefectures, Latin American countries, and regions of Italy, Spain, and the United Kingdom. Then, they estimate the degree of capital market integration (a measure of risk sharing) within each of these groups of regions. Finally, they perform a regression of the specialization index on the degree of risk sharing, controlling for relevant economic variables. The authors find a positive and significant relation between the degree of specialization of individual members of a group of countries, provinces, states, or prefectures, and the amount of risk that is shared within the group.

PD May 1999. **TI** Risk Sharing and Industrial Specialization: Regional and International Evidence. **AU** Kalemli-Ozcan, Sebnem; Sorensen, Bent E.; Yosha, Oved. **AA** Kalemli-Ozcan and Sorensen: Brown University. Yosha: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic

Research Working Paper: 16/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 49. **PR** no charge. **JE** F15, F21, F36, F43. **KW** Risk Sharing. Specialization. Law and Finance. Capital Markets.

AB See the abstract for Kalemli-Ozcan, Sebnem; Sorensen, Bent E.; Yosha, Oved, April 1999. "Risk Sharing and Industrial Specialization: Regional and International Evidence". Brown University Department of Economics Working Paper: 99/16; Department of Economics, Box B, Brown University, Providence, RI 02912.

Kapusta, Matthew C.

TI Glucksman Fellowship Program Student Research Reports. **AU** Chang, Isaac J.; Kapusta, Matthew C.; McKenna, Mark R.

Kasirye, Faith

TI The Poor Performance of Foreign Bank Subsidiaries: Were the Problems Acquired or Created? **AU** Peek, Joe; Rosengren, Eric S.; Kasirye, Faith.

Katz, Lawrence F.

TI The Shaping of Higher Education: The Formative Years in the United States, 1890 to 1940. **AU** Goldin, Claudia; Katz, Lawrence F.

Keen, Michael

PD July 1999. **TI** Coordinating Tariff Reduction and Domestic Tax Reform. **AU** Keen, Michael; Ligthart, Jenny E. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/93; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 18. **PR** not available. **JE** E62, F12, F13, H24, O19. **KW** Tariff Reform. Tax Reform. Intermediate Inputs. Imperfect Competition. Development.

AB A key obstacle to fundamental tariff reform in many developing countries is the revenue loss that it ultimately implies. This paper establishes a simple and practicable strategy for realizing the efficiency gains from tariff reform without reducing public revenues, showing that for a small open economy, a cut in tariffs combined with a point-for-point increase in domestic consumption taxes increases both welfare and public revenues. Increasingly stringent conditions are required, however, to ensure unambiguously beneficial outcomes from this reform strategy when allowance is made for such important features as nontradeable goods, intermediate inputs, and imperfect competition.

Keller, Wolfgang

TI On Theories Explaining the Success of the Gravity Equation. **AU** Evenett, Simon J.; Keller, Wolfgang.

Kelley, Maryellen R.

PD March 1998. **TI** The Institutional Context and Manufacturing Performance: The Case of the U.S. Defense Industrial Network. **AU** Kelley, Maryellen R.; Cook, Cynthia R. **AA** Kelley: National Institute of Standards and Technology. Cook: The Rand Corporation. **SR** National Bureau of Economic Research Working Paper: 6460; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 37. **PR** $5.00. **JE** H56, L11, L69, O38. **KW** Defense Industry. Manufacturing Networks. Technology Diffusion. Information Sharing.

AB U.S. manufacturing firms that make sophisticated weapons systems for the Pentagon are subject to an unusual regulatory regime that obligates them to "volunteer" information on their business practices to the government and to prime contractors as a condition of their special relationship with the government. Within this organizational community, certain types of information sharing with and assistance to other firms have come to be viewed as an ordinary obligation -- i.e., a condition of citizenship. This cooperative learning environment is indicative of a collaborative manufacturing network that enables member organizations to learn quickly about relevant process technology innovations and to implement them effectively. We find that defense contractors learn about information technology applications more quickly than enterprises outside the network. Moreover, learning advantages are not confined to transactions specific to the Pentagon, but benefit the non-military operations of the networked enterprises as well.

Kessler, Daniel P.

PD March 1998. **TI** Using Sentence Enhancements to Distinguish between Deterrence and Incapacitation. **AU** Kessler, Daniel P.; Levitt, Steven D. **AA** Kessler: Stanford University and National Bureau of Economic Research. Levitt: University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6484; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** K14, K42. **KW** Three-Strikes Laws. Crime Deterrence. Incapacitation. Prison Sentences.

AB It is typically difficult to differentiate empirically between deterrence and incapacitation since both are a function of expected punishment. In this paper we demonstrate that the introduction of sentence enhancements (i.e. increased punishments that are added on to prison sentences that would have been served anyway) provides a direct means of measuring deterrence. Because the criminal would have been sentenced to prison anyway, there is no additional incapacitation effect from the sentence enhancement in the short-run. Therefore, any immediate decrease in crime must be due to deterrence. We test the model using California's Proposition 8 which imposed sentence enhancements for a selected group of crimes. In the year following its passage, crimes covered by Proposition 8 fell by more than 10 percent relative to similar crimes not affected by the law, suggesting a large deterrent effect. Three years after the law comes into effect, eligible crimes have fallen roughly 20-40 percent compared to non-eligible crimes. This large deterrent effect suggests that sentence enhancements, and "three- strikes" laws in particular, may be more cost-effective than is generally thought.

TI What Do Prosecutors Maximize?: An Analysis of Drug Offenders and Concurrent Jurisdiction. **AU** Glaeser, Edward L.; Kessler, Daniel P.; Piehl, Anne Morrison.

Khan, Ali

TI International Treaties on Trade and Global Pollution. **AU** Chander, Parkash; Khan, Ali.

Khan, Aubhik

PD September 1999. **TI** Financial Development and Economic Growth. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/11; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 32. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** E22, G21, G31, O16, O40. **KW** Financial Intermediaries. Investment. Banking. Growth. Development.

AB The authors develop a theory of financial development based on the costs associated with the provision of external finance. These costs are assumed to arise within an environment where informational asymmetries between borrowers and lenders are costly to resolve. When borrowing is limited, producers with access to financial intermediary loans obtain higher returns to investment than other producers. This creates incentives for others to undertake the technology adoption necessary to access investment loans. Over time, as increasing numbers of producers gain access to external finance, borrowers' net worth rises relative to debt. This reduces the costs of financial intermediation and raises the overall return on investment. The theory is consistent with recent evidence that financial development reduces the costs associated with the provision of external finance and increases the rate of economic growth. Furthermore, the theory predicts that financial development raises the return on loans.

PD September 1999. **TI** Growth and Risk-Sharing with Private Information. **AU** Khan, Aubhik; Ravikumar, B. **AA** Khan: Federal Reserve Bank of Philadelphia. Ravikumar: University of Iowa. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/12; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 19. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** D82, E21, E22, G22, O40. **KW** Risk Sharing. Private Information. Welfare. Growth. Investment.

AB We examine the impact of incomplete risk-sharing on growth and welfare. The source of market incompleteness in our economy is private information: a household's idiosyncratic productivity shock is not observable by others. Risk-sharing between households occurs through long-term contracts with intermediaries. We find that incomplete risk-sharing tends to reduce the rate of growth relative to the complete risk-sharing benchmark. Numerical examples indicate that the welfare cost and the growth effect of private information are small.

Khoo, Michael

TI Substitution and Dropout Bias in Social Experiments: A Study of an Influential Social Experiment. **AU** Heckman, James J.; Hohmann, Neil; Smith, Jeffrey A.; Khoo, Michael.

Kiley, Michael T.

PD July 1999. **TI** Computers and Growth with Costs of Adjustment: Will the Future Look Like the Past? **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/36; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board, Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 30. **PR** no charge. **JE** E22, O33, O40. **KW** Computers. Productivity. Investment. Adjustment Costs. Growth Accounting.

AB This paper augments the traditional growth accounting framework by including a common specification of investment adjustment costs, and uses the framework to examine the past and likely future growth in U.S. nonfarm business output. The inclusion of adjustment costs can have large effects on the growth-accounting exercise when a new investment good is introduced. The framework indicates that the contribution of computers to economic growth has been held down by the large adjustment costs required to incorporate a new investment good into the economy's capital stock. Alternative calibrations of the model suggest that these adjustment costs have lowered measured growth in multifactor productivity since 1974 by about 1/2 percentage point -- a nontrivial percentage of the productivity slowdown. Combining the adjustments to multifactor productivity and the impact of computers implied by the model with adjustment costs boosts long-run growth in output per hour 3/4 percentage point above the 1974-1991 average.

Kim, Se-Jik

PD August 1999. **TI** Bailout and Conglomeration. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/108; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website: www.imf.org. **PG** 28. **PR** not available. **JE** D82, G21, G33, L22. **KW** Bailouts. Liquidation. Conglomerates. Banking. Private Information.

AB The paper suggests that when firms differ stochastically in their productivity, a bank may find it optimal not to bail out the failed nonconglomerate firms at all, but to bail out conglomerates fully. Expectation of such a bailout policy may encourage risk-averse firms to join a conglomerate to minimize the risk of liquidation. Furthermore, in the case of private information, bad firms follow good firms' decision on conglomeration to hide their type. Finally, the paper discusses the impact of conglomeration on the debt-equity ratio and the expansion of existing conglomerates through mergers and acquisitions.

Kletzer, Kenneth M.

PD July 1998. **TI** Sovereign Debts as Intertemporal Barter. **AU** Kletzer, Kenneth M.; Wright, Brian D. **AA** Kletzer: University of California, Santa Cruz. Wright: University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/100; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 24. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** F10, F34. **KW** Sovereign Debt. Intertemporal Barter. Renegotiation. Credit Markets. Anarchy.

AB Borrowing and lending between sovereign parties is modeled as intertemporal barter that smoothes the consumption of a risk-averse party subject to endowment shocks. The surplus anticipated in the relationship offers sufficient incentive for cooperation by all parties, including any other competitive agents who are potential lenders to the sovereign. The sole punishments consist of renegotiation-proof changes in the path of future payments. We show that intertemporal trade can be sustained in the absence of any exogenous enforcement of lending relationships whatsoever. That is, borrowing and lending are possible under anarchy, and are supported by punishments that consist of cheating any cheater. Long-term implicit relationships may be fulfilled as the continual renegotiation of simple incomplete short-term loans. The analysis suggests that the crucial role of the explicit loan contract is the identification of the relationships and the parties involved.

Knot, Klaas H. W.

TI Co-Movements in Long-Term Interest Rates and the Role of PPP-Based Exchange Rate Expectations. **AU** Berk, Jan Marc; Knot, Klaas H. W.

Kollmann, Robert

PD June 1999. **TI** Explaining International Comovements of Output and Asset Returns: The Role of Money and Nominal Rigidities. **AA** University of Paris XII. **SR** International Monetary Fund Working Paper: WP/99/84; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 47. **PR** not available. **JE** E32, E44, F31, F36, F41. **KW** Cross-Country Correlations. Output. Asset Returns. Nominal Rigidities. Business Cycles.

AB Empirically, output and asset returns are highly positively correlated across the United States and the other major industrialized countries. Standard business cycle models that assume flexible prices and wages, in the Real Business Cycle tradition, have great difficulties explaining this fact. This paper presents a dynamic-optimizing stochastic general equilibrium model of a two-country world with sticky nominal prices and wages and a flexible exchange rate. The structure here predicts positive international transmission of country-specific monetary policy and technology shocks, and it generates sizable cross- country correlations of output and of asset returns.

Kongsted, Hans Christian

PD December 1998. **TI** An I(2) Cointegration Analysis of Small-Country Import Price Determination. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/22; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 25. **PR** Free. **JE** C32, C51, C52, F41. **KW** Pricing-to-Market. Price Trends. Cointegration. Non-Stationarity. Hypothesis Testing.

AB This paper develops a procedure for testing hypotheses on the full set of cointegration parameters of the I(2) model. The proposed test is applied to the analysis of small-country import price determination extending the standard empirical framework to allow for variables integrated of order two. The empirical analysis of Danish data for 1975 to 1995 yields a fully specified I(2) long-run structure in terms of stationary pricing-to-market and inventory relations, a nominal second-order stochastic trend embodied in equal proportions in domestic and foreign price levels, and a real first-order trend driving the relative prices and the real interest rate.

Kontolemis, Zenon G.

PD August 1999. **TI** Analysis of the U.S. Business Cycle with a Vector-Markov-Switching Model. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/107; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 16. **PR** not available. **JE** B41, E32, E37. **KW** Business Cycles. Regime Switching. Switching Models.

AB This paper identifies turning points for the U.S. business cycle using different time series. The model, a multivariate Markov-Switching model, assumes that each series is characterized by a mixture of two normal distributions (a high and low mean) with switching determined by a common Markov process. The procedure is applied to the series that make up the composite U.S. coincident indicator to obtain business cycle turning points. The business cycle chronology is closer to the NBER reference cycle than the turning points obtained from the individual series using a univariate model. The model is also used to forecast the series, with encouraging results.

Kotikoff, Laurence J.

TI Medicare from the Perspective of Generational Accounting. **AU** Gokhale, Jagadeesh; Kotikoff, Laurence J.

Koutsougeras, Leonidas C.

PD January 1999. **TI** A Remark on the Number of Trading Posts in Strategic Market Games. **AA** University of Manchester and Tilburg University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9905; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 7. **PR** $100 per year. **JE** C62, C72, D51. **KW** Trading Posts. Law of One Price. Commodity Types. Equilibria.

AB In market games the one to one correspondences between commodity types and trading posts would be justified if it were true that the set of equilibria is not affected by the number of trading posts postulated at the outset of the model. We show that this is not true. We develop an example which features equilibria where a commodity is simultaneously exchanged in two trading posts at different prices, i.e., equilibria where the "law of one price" fails when the one to one correspondence between the commodities and trading posts is abandoned. Thus, we conclude that the set of equilibria in market games depends non- trivially on the number of trading posts. This conclusion further suggests that an explanation of the structure of trading posts is necessary.

PD March 1999. **TI** Market Games with Multiple Trading Posts. **AA** University of Manchester and Tilburg University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9918; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 15. **PR** $100 per year. **JE** C62, C72, D51. **KW** Trading Posts. Law of One Price. Equilibrium Prices. Equilibrium Allocations.

AB We study market games with multiple posts per commodity. We provide some facts that characterize prices of commodities across posts and show the following results: (i) As the number of agents increases, the price variability across posts for a commodity becomes smaller and it becomes zero when the number of agents becomes infinite, irrespectively of the distribution of characteristics in the economy. (ii) The set of equilibrium prices and allocations of a market game is a subset of the set of equilibria of another game with more trading posts per commodity. (iii) We demonstrate via an example that the inclusion can be strict, as there are equilibria with price disparities across posts for a commodity which cannot be captured with less trading posts. (iv) One can pass from an equilibrium of a market game into an equilibrium of a game with less trading posts per commodity, by consolidating posts where the price of a commodity is uniform.

Kovanen, Arto

TI Central Banking Without Central Bank Money. **AU** Henckel, Timo; Ize, Alain; Kovanen, Arto.

Kraay, Aart

PD July 1998. **TI** Comparative Advantage and the Cross-Section of Business Cycles. **AU** Kraay, Aart.; Ventura, Jaime. **AA** Kraay: The World Bank. Ventura: Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/09; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 44. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** E32, F41. **KW** Business Cycles. Comparative Advantage. Production Costs. Technology.

AB Business Cycles are both less volatile and more synchronized with the world cycle in rich countries than in poor ones. This paper develops two alternative but non-competing explanations for these facts. Both explanations proceed from the observation that rich countries specialize in "high-tech" products produced by skilled workers while poor countries specialize in "low-tech" products produced by unskilled workers. Cross- country differences in business cycles then arise because of asymmetries among the industries in which different countries specialize. The authors focus on two such asymmetries. The first is labeled the "competition bias" hypothesis, and is based on the idea that cross- country differences in production costs are more prevalent in high-tech industries, sheltering producers from foreign competition. The second asymmetry is labeled the "cyclical bias" hypothesis, and is based on the idea that production costs in low-tech industries might be more sensitive to the shocks that drive business cycles.

PD January 1999. **TI** Product Prices and the OECD Cycle. **AA** The World Bank. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/01; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 16. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** E24, E32, F15, F41. **KW** OECD Cycle. International Transmission. Commodity Trade. Business Cycles. Product Prices.

AB It is well known that business cycles in industrial countries exhibit a remarkable degree of synchronization. Much less known is that in the same group of industrial countries, the peak of the cycle is associated with high prices of labor-intensive products and low prices of capital- intensive ones. We document this cyclical behavior of product prices and argue that it offers an important clue as to why business cycles are so synchronized. Positive shocks in one or more countries raise the prices of labor-intensive products and, as a result, the demand for labor throughout the industrialized world. This generates increases in wages, employment and output in all industrial countries. Through this channel, shocks are positively transmitted across countries, creating a force towards the synchronization of business cycles.

Krane, Spencer D.

TI Unemployment Risk and Precautionary Wealth: Evidence from Households' Balance Sheets. **AU** Carroll, Christopher D.; Dynan, Karen E.; Krane, Spencer D.

Krebs, Tom

PD October 1998. **TI** Information. Financial Integration, and International Capital Flows. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 98/20; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 22. **PR** no charge. **JE** D52, F33, F36, G14. **KW** Information. Incomplete Markets. Financial Integration. Capital Flows. Welfare.

AB This paper argues that international financial integration increases investor's information about economic fundamentals and analyzes how an increase in information affects the world interest rate, capital flows, and welfare. It is shown that international financial integration leads to an increase in interest rate and capital flow volatility. Moreover, the (average) interest rate and the (average) volume of capital flows increase if the additional information is mainly about the capital-importing country. The welfare consequences are ambiguous, but can be decomposed into a direct effect due to better informed investment decisions and two indirect effects due to the change in the mean and volatility of the interest rate. If the volatility effect is negative and dominates, then the international financial integration makes all countries worse off. An international lender of last resort, however, can always ensure that all countries gain by lending at a concessional rate to countries experiencing information-induced capital outflows.

Krishna, Kala

PD May 1998. **TI** A New Model of Quality. **AU** Krishna, Kala; Winston, Tor. **AA** Krishna: Pennsylvania State University and and National Bureau of Economic Research. Winston: Pennsylvania State University. **SR** National Bureau of Economic Research Working Paper: 6580; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 20. **PR** $5.00. **JE** D40, D60, L13, L15, L20. **KW** Product Quality. Pricing. Welfare. Industrial Organization.

AB We develop a new model of quality to capture the idea that even if a customer chooses to purchase a product, it may fail to "deliver." In this event, the customer may wish to choose some other product. We model this as a two-stage game where firms first choose quality and then price. We find that in equilibrium, the high quality firm (the one with a higher probability of being able to "deliver") will always make higher profits than the low quality one even if costs of quality are sharply increasing. Our work thus provides a reason for high quality niches to be inherently more profitable. The implications for welfare and equilibrium under free entry are also studied.

Krishna, Pravin

PD April 1999. **TI** A Theory of Unilateralism and Reciprocity in Trade Policy. **AU** Krishna, Pravin; Mitra, Devashish. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/09; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 44. **PR** no charge. **JE** D72, F13, F23. **KW** Trade Policy. Political Economy. Lobby Formation. Unilateralism. Reciprocity.

AB Using the menu-action approach to endogenous determination of tariffs pioneered by Grossman and Helpman (1994) and allowing for lobby formation itself to be endogenous as in Mitra (1999), this paper analyzes the impact of unilateral trade liberalization by one country on its partner's trade policies. We find that such unilateral liberalization generally induces reciprocal tariff reductions by the partner country. Intuitively, unilateral liberalization generally by one country has the effect of increasing the incentives for the export lobby in the partner country to form and to lobby effectively against the import competing lobbies there for lower protection. The results stand in contrast to the policy arguments that suggest that closing (or threatening to close) one's markets would help pry open the markets of others as well as some recent results in the literature which emphasize institutional reciprocity as an essential means of getting to efficient outcomes.

Krishnamurthy, Arvind

TI Emerging Market Crises: An Asset Markets Perspective. **AU** Caballero, Ricardo J.; Krishnamurthy, Arvind.

Kroszner, Randall S.

TI Were the Good Old Days that Good? Changes in Managerial Stock Ownership Since the Great Depression. **AU** Holderness, Clifford G.; Kroszner, Randall S.; Sheehan, Dennis P.

Kruger, Malte

PD November 1997. **TI** Dynamic Hedging in Currency Crisis. **AA** University of Western Ontario and University of Cologne. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9811; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 6. **PR** $10.00 Canadian per paper. **JE** E43, F31, F32, G13. **KW** Dynamic Hedging. Central Banks. Intervention. Currency Crises. Interest Rates.

AB Garber and Spencer have argued that dynamic hedging may lead to perverse results when interest rates are used to defend an exchange rate. This paper shows that interest rate changes have little effect on dynamic hedgers when volatility is high.

PD November 1998. **TI** Exchange Rate Effects of Portfolio Shifts? **AA** University of Western Ontario and University of Cologne. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9818; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 21. **PR** $10.00 Canadian per paper. **JE** E44, F31, F41, G11, G15. **KW** Exchange Rates. Portfolio Shifts. Interest Rates.

AB Using the Branson model as an example, this paper seeks to clarify the role of interest rate and exchange rate changes in asset market models. Focusing on short-term adjustments, it is shown that portfolio shifts mainly affect relative interest rates in different countries. Only to the extent that portfolio shifts lead to changes in the money demand or money supply, are exchange rates affected as well. The announcement of German monetary union in 1990 is used as an example to illustrate the relative significance of interest rate changes as shock absorbers.

Kruse, Douglas

PD March 1998. **TI** Illegal Child Labor in the United States: Prevalence and Characteristics. **AU** Kruse, Douglas; Mahony, Douglas. **AA** Kruse: Rutgers University and National Bureau of Economic Research. Mahony: Rutgers University. **SR** National Bureau of Economic Research Working Paper: 6479; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 18. **PR** $5.00. **JE** J13, J18, J28, K31. **KW** Illegal Employment. Child Labor. Employment Estimates. Child Well- Being.

AB This study provides the first comprehensive estimates of children and youth working under conditions that violate federal and state child labor laws. Using the CPS (Current Population Survey), NLS (National Longitudinal Survey), and other sources, it is estimated that 148,000 minors are employed illegally in an average week -- working too many hours or in hazardous occupations -- and 290,000 are employed illegally at some point during a year. The total number of hours worked illegally is about 113 million per year, for which these minors are paid over $560 million. Whites, males, and 15-year-olds are the most likely to be working in violation of child labor laws. Youths working illegally in hazardous jobs earn on average $1.38 per hour less than legal young adults in the same occupations, which combined with the savings from employing youths for excessive hours adds up to a total employer cost savings of roughly $155 million per year. In addition to raising important policy concerns about the health and well-being of these youths, the findings make a case for the development of high-quality employment data on children and youths, to improve estimates of illegal employment and study its effects.

Kubler, Felix

PD June 1999. **TI** The Identification of Preferences From the Equilibrium Prices of Commodities and Assets. **AU** Kubler, Felix; Polemarchakis, Heracles M. **AA** Kubler: Yale University. Polemarchakis: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9933; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 23. **PR** $100 per year. **JE** C62, D11, D52. **KW** Equilibrium. Identification. Asset Market. Endowments.

AB The competitive equilibrium correspondence, which associates equilibrium prices of commodities and assets with allocations of endowments, identifies the preferences and beliefs of individuals; this is the case even if the asset market is incomplete.

Kuersteiner, Guido M.

PD March 1999. **TI** Optimal Instrumental Variables Estimation for ARMA Models. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/07; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 27. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C13, C22, C51. **KW** ARMA. Heteroskedasticity. Instrumental Variables. Efficiency Lower- Bound. Frequency Domain.

AB In this paper a new class of Instrumental Variables estimators for linear processes and in particular ARMA models is developed. Previously, IV estimators based on lagged observations as instruments have been used to account for unmodeled MA(q) errors in the estimation of the AR parameters. Here it is shown that these IV methods can be used to improve efficiency of linear time series estimators in the presence of unmodeled conditional heteroskedasticity. Moreover an IV estimator for both the AR and MA parts is developed. One consequence of these results is that Gaussian estimators for linear time series models are inefficient members of this IV class. A leading example of an inefficient member is the OLS estimator for AR(p) models which is known to be efficient under homoskedasticity.

PD March 1999. **TI** Efficient IV Estimation for Autoregressive Models with Conditional Heterogeneity. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/08; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 28. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C14, C15, C21. **KW** Efficiency. Two-Step Estimation. Sample Selection Models. Semiparametric Estimation.

AB This paper analyzes autoregressive time series models where the errors are assumed to be martingale difference sequences with weak additional restrictions on their distribution. Under these conditions Quasi Maximum Likelihood estimators of the autoregressive parameters are no longer efficient in the GMM sense. The main result of the paper is the construction of efficient semiparametric instrumental variables estimators for the autoregressive parameters. The optimal instruments are a linear function of the innovation sequence. It is shown that a frequency domain approximation of the optimal instruments leads to an estimator which only depends on the data periodogram and an unknown linear filter. Semiparametric methods to estimate the optimal filter are proposed. The procedure is equivalent to GMM estimators where lagged observations are used as instruments. The number of instruments is allowed to grow at the same rate as the sample. No lag truncation parameters are needed to implement the estimator.

Kyhl, Soren

TI Pay-Per-View Television: Consequences of a Ban. **AU** Hansen, Claus Thustrup; Kyhl, Soren.

La Porta, Rafael

PD June 1998. **TI** Agency Problems and Divided Policies Around the World. **AU** La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; Vishny, Robert W. **AA** La Porta, Shleifer and Lopez-de-Silanes: Harvard University and National Bureau of Economic Research. Vishny: University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6594; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 25. **PR** $5.00. **JE** D82, G32, G35. **KW** Dividends. Agency Problems. Minority Shareholders. Corporate Finance. Reputation.

AB This paper addresses the question of why firms pay dividends, the so-called "dividend puzzle" from the agency perspective. The authors outline two agency models of dividends. On what they call "the outcome" model, dividends are the result of effective pressure of minority shareholders to force corporate outsiders to disgorge cash. Under this model, stronger minority shareholder rights should be associated with higher dividends. On "the substitute" model, insiders choose to pay dividends to establish a reputation for decent treatment of minority shareholders so that firms can raise equity finance in the future. Under this model, stronger minority shareholder rights reduce the need for establishing a reputation, and so should be associated with lower dividends. The authors compare these models on a cross-section of 4,000 companies from around the world, which operate in 33 countries with different levels of shareholder protection, and therefore different strengths of minority shareholder rights.

Lafontaine, Francine

PD May 1998. **TI** Incentive Contracting and the Franchise Decision. **AU** Lafontaine, Francine; Slade, Margaret E. **AA** Lafontaine: University of Florida and National Bureau of Economic Research. Slade: University of British Columbia. **SR** National Bureau of Economic Research Working Paper: 6544; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 37. **PR** $5.00. **JE** C78, D81, J33, L23, L81. **KW** Franchise Contracts. Incentive Contracts. Compensation Packages. Insurance.

AB We examine theoretical predictions and econometric evidence concerning franchise contracting and sales-force compensation and suggest a number of factors that ought to influence the contracts that are written between principles and agents. For each factor, we construct the simplest theoretical model that is capable of capturing what we feel to be its essence. The comparative statics from the theoretical exercise are then used to organize our discussion of the empirical evidence, where the evidence is taken from published studies that have attempted to assess each factor's effect on the power of agent incentives. We also discuss theoretical issues and empirical results pertaining to a few topics that have been addressed in the literature but that do not fit easily into our simple modeling framework. A surprising finding of our survey of retail contracting under exclusive marks is the robust nature of the evidence: although researchers assess different industries over different time periods using a number of proxies for a given factor, their empirical findings are usually consistent with one another.

Lahreche-Revil, Amina

TI Pegging the CEEC's Currencies to the Euro. **AU** Benassy-Quere, Agnes; Lahreche-Revil, Amina.

Lakdawalla, Darius

PD May 1998. **TI** The Rise in Old Age Longevity and the Market for Long-Term Care. **AU** Lakdawalla, Darius; Philipson, Tomas. **AA** Lakdawalla: University of Chicago. Philipson: University of Chicago and National Bureau of

Economic Research. **SR** National Bureau of Economic Research Working Paper: 6547; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 26. **PR** $5.00. **JE** I11, I12, J14, J16. **KW** Longevity. Health Care. Home Production. Demand and Supply.

AB This paper considers how the biological forces, which govern the stocks of frail and healthy persons, interact with economic forces, which govern the demand and supply for labor-intensive care. The authors argue that aging lowers the demand for market care by increasing the supply of home production. Aging may also have an indirect demand effect, which may reinforce or counteract the direct negative demand effect. The marriage market provides care-givers for home production; therefore, increased longevity may lower demand for market production. Growth of elderly males contracts the long-term care market by easing the scarcity of men in the marriage market. A rapid deceleration in output growth has taken place in the U.S. over the last two decades, despite a constant rate of longevity growth and enormous growth in demand subsidies: since growth in elderly males has risen dramatically relative to females, the rate of long-term care growth has slowed significantly. The predictions are tested using state- and county-level evidence on the U.S. market for long-term nursing home care over the last three decades. The evidence supports the predictions concerning the response in output growth to aging and the contraction of output due to the aging of males.

Lambson, Val E.

TI On The Effects of Entry in Cournot Markets. **AU** Amir, Rabah; Lambson, Val E.

Lancaster, Tony

PD April 1999. **TI** Econometric Analysis of Dynamic Models: A Growth Theory Example. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/15; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 12. **PR** no charge. **JE** B23, C10, C23, C33. **KW** Orthogonal Parameters. Bayes. Nuissance Parameters. Growth Theory. Solow Model.

AB Recent work on the econometrics of panel data with fixed effects has emphasized the value of seeking an orthogonal reparametrization of those effects. This is a redefinition of the fixed effects to try to separate them, in the likelihood, from the parameters of interest. The aim of this paper is to show how to do this, and to carry out an actual, if rather stylized, analysis of real data using a model, the Solow growth model, of some interest to the profession. The authors wish to show that the method works and how it works and to make the approach accessible to applied economists.

Lane, Phillip R.

TI Voracity and Growth. **AU** Tornell, Aaron; Lane, Phillip R.

PD April 1998. **TI** Why Aren't Savings Rates in Latin America Procyclical? **AU** Lane, Phillip R.; Tornell, Aaron. **AA** Lane: Trinity College Dublin. Tornell: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6502; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E21, F43, O40, Q33. **KW** Countercyclical Saving. Latin America. Non-Representative Agent. Intertemporal Model.

AB We document a striking empirical regularity: Latin American savings rates are as a rule substantially less procyclical than for OECD countries and in some cases are actually countercyclical. We build a non-representative agent intertemporal macroeconomic model that rationalizes this phenomenon as the equilibrium outcome of interaction between multiple groups that have common access to aggregate income. We conclude by suggesting that institutional reform may hold the key to improving the cyclical behavior of savings in Latin America.

Laxton, Douglas

TI Simple Monetary Policy Rules Under Model Uncertainty. **AU** Isard, Peter; Laxton, Douglas; Eliasson, Ann-Charlotte.

Lazear, Edward P.

PD April 1998. **TI** Diversity and Immigration. **AA** Stanford University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6535; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 42. **PR** $5.00. **JE** F22, J61. **KW** Diversity. Immigration Policy. Skills. Communication.

AB One of the economic benefits of immigration is that the diversity of the population is enhanced. Diversity, it is argued, enriches the environment in which individuals live and trade and may contribute to greater creativity. What does diversity mean? Do current immigration policies enhance diversity? To the extent that there are gains from diversity, they come through the interaction of individuals from one culture or background with individuals from another. A good partner in the interaction has different skills, has skills that are relevant to one's own activity, and is a person with whom one can communicate. The argument in favor of diversity is evaluated both theoretically and empirically using the 1990 Census. Diversity cannot be the justification of U.S. immigration policy. Indeed, current immigration policy fails to promote diversity. Further, the results suggest that our immigration policy has resulted in differences in the characteristics of immigrants that reflect the effects of selection as much as they do the underlying characteristics of the populations from which the immigrants are drawn. Balanced immigration, perhaps implemented through the sale of immigration slots, would do more to enrich the diversity of the U.S. population.

PD May 1998. **TI** Globalization and the Market for Teammates. **AA** Stanford University and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6579; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 46. **PR** $5.00. **JE** F23, L20, M10. **KW** Multinational Firms. Globalization. Complementarities.

AB The globalization of firms is explored at theoretical and empirical levels. The idea is that a global firm is a multicultural team. The existence of a global firm is somewhat puzzling. Combining workers who have different cultures, legal systems, and languages imposes costs on the firm that would not be present were all workers to conform to one standard. In order to offset the costs of cross-cultural dealing, there must be complementarities between the workers that are sufficiently important to overcome the costs. Disjoint and relevant skills create an environment where the gains from complementarities can be significant. It is also necessary that teammates be able to communicate with one another. The search for the "best practice" is analyzed and empirical support from an examination of trading patterns is provided.

Le Breton, Michel

TI Strategic Candidacy and Voting Procedures. **AU** Dutta, Bhaskar; Jackson, Matthew O.; Le Breton, Michel.

TI Choquet Rationality. **AU** Ghirardato, Paolo; Le Breton, Michel.

TI Mixed Refinements of Shapley's Saddles and Weak Tournaments. **AU** Duggan, John; Le Breton, Michel.

Lebow, David E.

PD July 1999. **TI** Downward Nominal Wage Rigidity: Evidence from the Employment Cost Index. **AU** Lebow, David E.; Saks, Raven E.; Wilson, Beth Anne. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/31; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 38. **PR** no charge. **JE** E24, E31, J31, J32. **KW** Wage Rigidity. Benefits. Inflation. Nominal Wages. Unemployment.

AB We examine the extent of downward nominal wage rigidity using the micro data underlying the BLS employment cost index -- an extensive, establishment-based data set with detailed information on wage and benefit costs. We find stronger evidence of downward nominal wage rigidity than did previous studies using panel data on individuals. Firms appear able to circumvent part, but not all, of this rigidity by varying benefits: Total compensation displays modestly less rigidity than do wages alone. Given our estimated amount of rigidity, a simple model predicts that the disinflation over the 1980's would have raised equilibrium unemployment notably. This prediction stands in contrast to the actual behavior of unemployment over this period: The addition of a term capturing the cost of rigidity (that rises as inflation falls) has no additional explanatory power in a standard Phillips Curve equation.

PD July 1999. **TI** Recent Trends in Compensation Practices. **AU** Lebow, David E.; Sheiner, Louise; Slifman, Larry; Starr-McCluer, Martha. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/32; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 26. **PR** no charge. **JE** J24, J33. **KW** Compensation. Variable Pay. Stock Options. Labor Costs.

AB According to some accounts, an increasing number of firms are substituting lump-sum payments for regular pay increases, allowing for greater variability of remuneration across individuals or groups, and making greater use of profit sharing or stock options. Many of these practices are outside the scope of the typical measures of economy-wide compensation growth. Moreover, intensified use of these schemes ought to heighten the responsiveness of overall compensation costs to business conditions and could also, in theory, boost productivity. The authors find that the spreading use of these practices could be leading to an understatement of the annual growth rate of actual employment costs that is not insignificant. Moreover, the changes have apparently helped to increase the flexibility of pay both across time and across workers. In addition, by linking pay more closely to performance, the firms the authors contacted seemed to think that their employees were working more efficiently.

Lederman, Daniel

TI The Political Economy of Unilateral Trade Liberalization: The Case of Chile. **AU** Edwards, Sebastian; Lederman, Daniel.

Leduc, Sylvain

TI On Exchange Rate Regimes, Exchange Rate Fluctuations, and Fundamentals. **AU** Dedola, Luca; Leduc, Sylvain.

Lee, Jaewoo

PD April 1998. **TI** The Current Account and the Real Exchange Rate: A Structural VAR Analysis of Major Currencies. **AU** Lee, Jaewoo; Chinn, Menzie D. **AA** Lee: University of California, Irvine. Chinn: University of California, Santa Cruz and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6495; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 15. **PR** $5.00. **JE** C33, F31, F32, F41. **KW** Current Account. Exchange Rate. Identification Assumptions. Shocks.

AB A sticky-price model is used to motivate a structural VAR analysis of the current account and the real exchange rate for seven major industrialized countries (the U.S., Canada, the UK, Japan, German, France and Italy). The analysis is distinguished from previous work in that it adopts minimal assumptions for identification. The empirical results are consistent with the theoretical model, as well as the sticky price intertemporal model of Obstfeld and Rogoff (1995). Permanent shocks to productivity have large long term effects on the real exchange rate, but relatively small effects on the current account; money shocks have large effects on the current account and exchange rate in the short run, but not on either variable in the long run.

Lefebvre, Claire

TI Pour ou Contre le Systeme Commun de TVA. **AU** Guichard, Stephanie; Lefebvre, Claire.

Lehnert, Andreas

PD July 1999. **TI** Pricing Systemic Crises: Monetary and Fiscal Policy When Savers Are Uncertain. **AU** Lehnert, Andreas; Passmore, Wayne. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/33; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 54. **PR** no charge. **JE** D80, E44, E52, E62, G20. **KW** Knightian Uncertainty. Financial Crises. Monetary Policy. Fiscal Policy. Saving.

AB The return on assets depends on the joint behavior of all savers; if all sell the asset simultaneously then there will be a financial "Armageddon." We assume that risk-neutral savers' information about aggregate investment is too vague to form precise probability estimates, so that they have Knightian uncertainty, and thus act to maximize their minimum payoff. Savers invest in a risky asset (economy-wide production) and in a riskless asset (government bonds). In times of high uncertainty, savers hold too many government bonds, lowering output. A monetary policy of lowering the risk-free rate causes savers to save less in total, but to invest more in the risky asset, and is shown to be Pareto-improving, but to be unable to recapture the optimal allocations. To restore investment and total savings to their optimal levels, the government must also use a fiscal policy of distortionary taxes to discourage current consumption and leisure.

PD August 1999. **TI** The Banking Industry and The Safety Net Subsidy. **AU** Lehnert, Andreas; Passmore, Wayne. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/34; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 33. **PR** no charge. **JE** D80, E44, E52, G21, G28. **KW** Banking. Knightian Uncertainty. Safety-Net Subsidy. Monetary Policy. Fiscal Policy.

AB Governments use monetary policies to counteract the effects of financial crises. In this paper we examine the subsidy that such "safety net" policies provide to the banking industry. Using a model of uncertainty-driven financial crises, we show that any monetary policy designed to maintain risky investment in the face of investor uncertainty (and thus promote economic growth and stability) will subsidize the banking industry. In addition, we show that the mere presence of a monetary authority willing to support a failing banking system in bad times subsidizes the banking industry, even if those bad times do not occur. A conditional bailout policy that does not extend equally to all financial institutions creates a greater subsidy for those institutions perceived as being "close" to the central bank, possibly giving these institutions a competitive advantage. Economic profits, in this model, are required to cover fixed costs of entry into the banking system.

Leite, Carlos

PD June 1999. **TI** Does Mother Nature Corrupt? Natural Resources, Corruption, and Economic Growth. **AU** Leite, Carlos; Weidmann, Jens. **AA** Leite and Weidmann: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/85; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 31. **PR** not available. **JE** D72, D73, O13, O40, Q32. **KW** Growth. Neoclassical Growth. Natural Resources. Corruption. Cross- Country Studies.

AB This paper argues that natural resource abundance creates opportunities for rent-seeking behavior and is an important factor in determining a country's level of corruption. In a simple growth model, we illustrate the interrelationships between natural resources, corruption, and economic growth, and discuss potential anti-corruption policies. We show that the extent of corruption depends on natural resource abundance, government policies, and the concentration of bureaucratic power. Furthermore, the growth effects of natural resource discoveries and anti-corruption policies crucially depend on the economy's state of development. We empirically corroborate the model's implications in a cross-country framework with both corruption and growth endogenized.

Leite, Sergio Pereira

TI Measuring Financial Development in Sub-Saharan Africa. **AU** Gelbard, Enrique A.; Leite, Sergio Pereira.

Leith, J. Clark

PD November 1998. **TI** The Design of Policy Frameworks and the Role of the Policy Advisor. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9815; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 18. **PR** $10.00 Canadian per paper. **JE** D70, E61, P16. **KW** Policy Frameworks. Policy Advisor. Botswana.

AB The economic policy advisor has a complex problem to deal with: proposing policy to achieve optimal outcomes in the real world where many of the idealized assumptions are not valid and where political failure is the order of the day. In such circumstances, how should an economist approach the design of economic policy which is more likely than not to yield a net economic benefit to society? To answer that question, the author looks at the role of economic policies in explaining economic growth. To capture the institutional detail that may be lacking in multi-country regressions, the author looks at the case of Botswana, which has a remarkable record of economic growth. Based on the Botswana case, the author argues that the focus of the policy advisor must be broader than simply designing the optimal economic policy. The advisor should also be concerned about all sources of sub-optimal economic performance.

Leruth, Luc

TI Cyclical Effects of the Composition of Government Purchases. **AU** Aziz, Jahangir; Leruth, Luc.

TI Corporate Governance Structures, Control and Performance in European Markets: A Tale of Two Systems. **AU** Crama, Yves; Leruth, Luc; Renneboog, Luc; Urbain, Jean-Pierre.

Levin, Andrew

PD May 1998. **TI** Robustness of Simple Monetary Policy Rules under Model Uncertainty. **AU** Levin, Andrew; Wieland, Volker; Williams, John C. **AA** Board of Governors of the Federal Reserve System. **SR** National Bureau of Economic Research Working Paper: 6570; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E31, E32, E52. **KW** Monetary Policy. Inflation. Business Cycles. Interest Rate Rule. Uncertainty.

AB This paper investigates the properties of alternative monetary policy rules using four structural macroeconometric models: the Fuhrer- Moore model, Taylor's Multi-Country Model, the MSR model of Orphanides and Wieland, and the FRB staff model. The authors compute the output- inflation volatility frontier of each model for alternative specifications of the interest rate rule, subject to an upper bound on nominal interest rate volatility. Their analysis provides strong support for rules in which the first-difference of the federal funds rate responds to the current output gap and the deviation of the one-year average inflation rate from a specified target. Furthermore, first-difference rules generate essentially the same policy frontier as more complicated rules. Finally, this class of rules is robust to model uncertainty, in the sense that a first-difference rule taken from the policy frontier of one model is very close to the policy frontier of each of the other three models.

Levin, Jonathan

TI The Value of Information In Monotone Decision Problems. **AU** Athey, Susan; Levin, Jonathan.

TI Information and Competition in U.S. Forest Service Timber Auctions. **AU** Athey, Susan; Levin, Jonathan.

Levine, Phillip B.

TI Less-Skilled Workers, Welfare Reform, and the Unemployment Insurance System. **AU** Gustafson, Cynthia K.; Levine, Phillip B.

Levinsohn, James

TI Differentiated Products Demand Systems From a Combination of Micro and Macro Data: The New Car Market. **AU** Berry, Steven; Levinsohn, James; Pakes, Ariel.

Levitt, Steven D.

TI Using Sentence Enhancements to Distinguish between Deterrence and Incapacitation. **AU** Kessler, Daniel P.; Levitt, Steven D.

PD June 1998. **TI** Drug-Selling Gang's Finances. **AU** Levitt, Steven D.; Venkatesh, Sudhir Alladi. **AA** Levitt: University of Chicago and National Bureau of Economic Research. Venkatesh: Harvard Society of Fellows. **SR** National Bureau of Economic Research Working Paper: 6592; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 31. **PR** $5.00. **JE** D23, D40, J31, K42, L20. **KW** Gangs. Illegal Behavior. Wages. Market Structure.

AB This paper analyzes a unique data set detailing the financial activities of a drug-selling street gang on a monthly basis over a four-year period in the recent past. The data, originally compiled by the gang leader, contain detailed information on the sources of revenues and expenditures. Street-level drug dealing appears to be less lucrative than is generally thought. The authors estimate the average wage in the organization to rise from roughly $6 per hour to $11 per hour over the time period studied. The distribution of wages, however, is extremely skewed. There is some evidence consistent both with compensating differentials and efficiency wages. The markup on drugs suggests that the gang has substantial local market power. Gang wars appear to have an important strategic component: violence on another gang's turf shifts demand away from that area. The gang the authors observe responds to such attacks by pricing below marginal cost.

Ley, Eduardo

PD July 1999. **TI** We Just Averaged Over Two Trillion Cross-Country Growth Regressions. **AU** Ley, Eduardo; Steel, Mark F. J. **AA** Ley: International Monetary Fund. Steel: University of Edinburgh. **SR** International Monetary Fund Working Paper: WP/99/101; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 18. **PR** not available. **JE** C11, C15, C52, O49. **KW** Bayesian Model Averaging. Regressor Choice. Growth. Monte Carlo. Model Uncertainty.

AB We investigate the issue of model uncertainty in cross-country growth regressions using Bayesian model averaging (BMA). We find that the posterior probability is distributed among many models, suggesting the superiority of BMA over any single model. Out-of-sample predictive results support that claim. In contrast with Levine and Renelt (1992), our results broadly support the more "optimistic" conclusion of Sala-i-Martin (1997b), namely, that some variables are important regressors for explaining cross-country growth patterns. However, the variables we identify as most useful for growth regression differ substantially from Sala-i-Martin's results.

Liang, Hong

PD June 1999. **TI** Do Hong Kong SAR and China Constitute an Optional Currency Area? An Empirical Test of the Generalized Purchasing Power Parity Hypothesis. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/79; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 15. **PR** not available. **JE** F31, F33, F36, F41. **KW** Exchange Rates. Purchasing Power Parity. Optimal Currency Union. Hong Kong. China.

AB The paper explores the behavior of the long-run real exchange rate (RER) of Hong Kong SAR and China by testing the generalized-purchasing power parity hypothesis (G-PPP). The hypothesis argues that if the fundamental variables determining RERs are sufficiently integrated, as in a currency area, the RERs should share common trends. The findings of this study suggest (1) at present, Hong Kong SAR and China do not satisfy the conditions necessary for forming an optimal currency area by themselves; (2) when Japan and the United States are added to the group, common trends can be found; and (3) the long-run elasticity between the RERs of Hong Kong and China is negative.

TI How Persistent are Shocks to World Commodity Prices? **AU** Cashin, Paul; Liang, Hong; McDermott, C. John.

Liang, Nellie

TI Corporate Payout Policy and Managerial Stock Incentives. **AU** Fenn, George W.; Liang, Nellie.

Lichtenberg, Frank R.

PD May 1998. **TI** Pharmaceutical Innovation, Mortality Reduction, and Economic Growth. **AA** Columbia University and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6569; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 17. **PR** $5.00. **JE** I12, L65, O33, O40. **KW** Pharmaceuticals. Innovation. Mortality. Income Growth.

AB The authors perform an econometric investigation of the contribution of pharmaceutical innovation to mortality reduction and growth in lifetime per capita income. In both of the periods studied (1970-80 and 1980-91), there is a highly significant positive relationship across diseases between the increase in mean age at death and rates of introduction of new, "priority" drugs. The estimates imply that in the absence of pharmaceutical innovation, there would have been no increase and perhaps even a small decrease in mean age at death, and that new drugs have increased life expectancy, and lifetime income, by about 0.75-1.0% per annum. The drug innovation measures are also strongly positively related to the reduction in life-years lost in both periods. Some of the more conservative estimates imply that a one-time Research and Development expenditure of about $15 billion subsequently saves 1.6 million life-years per year, whose annual value is about $27 billion.

PD June 1998. **TI** The Allocation of Publicly-Funded Biomedical Research. **AA** Columbia University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6601; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 17. **PR** $5.00. **JE** H51, I12, I18, O32, O38. **KW** Biomedical Research. Government Expenditures. Research and Development. Technological Change.
AB The authors develop a simple theoretical model of the allocation of public biomedical research expenditure, and present some empirical evidence about the determinants of this allocation. The authors calculate distributions of government-funded biomedical research expenditure, by disease, from records of all research projects supported by the United States Public Health Service; to obtain a reasonably complete accounting of disease burden (indicative of the benefit of achieving advances against different diseases), they utilize data on both the dying and the living. They find a very strong positive relationship across diseases between total life-years lost before age 65 and public research and development expenditure. But the amount of publicly-funded research on a disease decreases with the share of life- years before age 65 lost to the disease that are lost by non-whites. There tends to be more research about chronic conditions that are prevalent among people living in low-income households.

Ligthart, Jenny E.
TI Coordinating Tariff Reduction and Domestic Tax Reform. **AU** Keen, Michael; Ligthart, Jenny E.

Lim, Terrence
TI Bad News Travels Slowly: Size, Analyst Coverage and the Profitability of Momentum Strategies. **AU** Hong, Harrison; Lim, Terrence; Stein, Jeremy C.

Lizzeri, Alessandro
TI The Role of Leasing under Adverse Selection. **AU** Hendel, Igal; Lizzeri, Alessandro.

Lloyd-Braga, Teresa
TI Endogenous Fluctuations in an Open Economy with Increasing Returns to Scale. **AU** Aloi, Marta; Dixon, Huw D.; Lloyd-Braga, Teresa.

Lochner, Lance
TI Tax Policy and Human Capital Formation. **AU** Heckman, James J.; Lochner, Lance; Taber, Christopher.

Loparic, Marko
PD March 1999. **TI** The Uncapacitated Lot-Sizing Problem With Sales and Safety Stocks. **AU** Loparic, Marko; Pochet, Yves; Wolsey, Laurence A. **AA** Loparic: Universite Catholique de Louvain. Pochet and Wolsey: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9917; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 20. **PR** $100 per year. **JE** C61, D24. **KW** Lot-Sizing. Production Planning. Mixed-Integer Programming. Integral Polyhedra.
AB We examine a variant of the uncapacitated lot-sizing model of Wagner- Whitin involving sales instead of fixed demands, and lower bounds on stocks. Two extended formulations are presented, as well as a dynamic programming algorithm and a complete description of the convex hull of solutions. When the lower bounds of stocks are non-decreasing over time, it is possible to describe an extended formulation for the problem and a combinatorial separation algorithm for the convex hull of solutions. Finally when the lower bounds on stocks are constant, a simpler polyhedral description is obtained for the case of Wagner-Whitin costs.

Lopez-de-Silanes, Florencio
TI Agency Problems and Divided Policies Around the World. **AU** La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; Vishny, Robert W.

Lovo, Stefano
TI A Comparison of Standard Multi-Unit Auctions with Synergies. **AU** Albano, Gian-Luigi; Germano, Fabrizio; Lovo, Stefano.

Lubrano, Michel
PD December 1998. **TI** Smooth Transition Garch Models: A Bayesian Perspective. **AA** GREQAM-CNRS and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9866; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 25. **PR** $100 per year. **JE** C11, C22, C51, G14. **KW** Bayesian Analysis. Asymmetric GARCH. Non-Linear Modeling. Stock Indexes.
AB This paper proposes a new kind of asymmetric GARCH where the conditional variance obeys two different regimes with a smooth transition function. In one formulation, the conditional variance reacts differently to negative and positive shocks while in a second formulation, small and big shocks have separate effects. The introduction of a threshold allows for a mixed effect. A Bayesian strategy, based on the comparison between posterior and predictive Bayesian residuals, is built for detecting the presence and the shape of non-linearities. The method is applied to the Brussels and Tokyo stock indexes. The need for an alternative parameterization of the GARCH model is emphasized as a solution to numerical problems.

Luengo-Prado, Maria J.
PD January 1999. **TI** Public Education, Communities, and Vouchers. **AU** Luengo-Prado, Maria J.; Volij, Oscar. **AA** Luengo-Prado: Brown University. Volij: Brown University and Hebrew University. **SR** Brown University Department of Economics Working Paper: 99/02; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 33. **PR** no charge. **JE** H42, I21, I22, I28. **KW** Public Education. Vouchers. Communities. Educational Quality.
AB This paper examines the effects of school vouchers on

public school quality in a simple two-community model with local provision of education. Individuals differ only by income and one community imposes a fixed exogenous cost on its residents. The equilibria of the model are stratified with the rich community providing better education with a lower tax rate. We show that the introduction of a simple voucher system can result in a Pareto improvement as an equilibrium phenomenon. This improvement brings education quality to both communities. However, the quality difference between communities is shown to increase in equilibrium.

Luttmer, Erzo E. P.

TI Network Effects and Welfare Cultures. **AU** Mullainathan, Sendhil; Bertrand, Marianne; Luttmer, Erzo E. P.

Ma, Henry

TI Privatization, Social Impact and Social Safety Nets. **AU** Gupta, Sanjeev; Schiller, Christian; Ma, Henry.

Mahony, Douglas

TI Illegal Child Labor in the United States: Prevalence and Characteristics. **AU** Kruse, Douglas; Mahony, Douglas.

Mairesse, Francois

PD June 1999. **TI** Museum Assessment and FDH Technology: A Global Approach. **AU** Mairesse, Francois; Vanden Eeckaut, Philippe. **AA** Mairesse: Universite Libre de Bruxelles. Vanden Eeckaut: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9938; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 26. **PR** $100 per year. **JE** C69, D24, H41. **KW** Free-Disposal Hull. Technical Efficiency. Scale Efficiency. Museum Assessment.

AB This paper presents a global approach for museum assessment. We define a museum as an entity which needs to be evaluated according to three well defined tasks: preservation, research and communication, and outcomes. We propose a methodology based on the determination of efficiency frontiers. This method assumes a deterministic non parametric and non convex technology (Free Disposal Hull). We analyze technical efficiency, but also scale efficiency with a new restrictive scale approach. We present an ordering of museums into classes representing a level of performance with respect to the three required tasks. We illustrate our analysis using a three year database of museums from the French speaking region of Belgium.

Maitland-Smith, Fenella

TI Price Imputation and Other Techniques for Dealing with Missing Observations, Seasonality and Quality Change in Price Indices. **AU** Armknecht, Paul A.; Maitland-Smith, Fenella.

Malliaris, A. G.

PD December 1998. **TI** Methodological Issues in Asset Pricing: Random Walk or Chaotic Dynamics. **AU** Malliaris, A. G.; Stein, Jerome L. **AA** Malliaris: Loyola University. Stein: Brown University. **SR** Brown University Department of Economics Working Paper: 98/25; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 33. **PR** no charge. **JE** C60, D40, D83, G12, G14. **KW** Market Efficiency. Information. Chaos. Price Volatility. Bayesian Learning.

AB The authors analyze the theoretical foundations of the efficient market hypothesis by stressing the efficient use of information and its effect upon price volatility. The "random walk" hypothesis assumes that price volatility is exogenous and unexplained. The authors accept the view that randomness appears because information is incomplete. They construct a general and well-accepted intertemporal price determination model, and show that price volatility reflects the output of a higher order dynamic system with an underlying stochastic foundation. Their analysis is used to explain the learning process and the efficient use of information in their archetype model. They estimate a general unrestricted system for financial and agricultural markets to see which specifications they can reject. What emerges is that a system very close to their archetype model is consistent with the evidence. In this manner, the authors may have explained some determinants of the "randomness" of pricing changes.

Maniquet, Francois

TI Optimal Income Taxation: An Ordinal Approach. **AU** Fleurbaey, Marc; Maniquet, Francois.

Mankiw, N. Gregory

TI Government Debt. **AU** Elmendorf, Douglas W.; Mankiw, N. Gregory.

Marchand, Huges

PD October 1999. **TI** Cutting Planes in Integer and Mixed Integer Programming. **AU** Marchand, Huges; Martin, Alexander; Weismantel, Robert; Wolsey, Laurence. **AA** Marchand: London School of Economics. Martin: Konrad-Zuse-Zentrum. Weismantel: IMO, Otto-von-Guericke Universitat. Wolsey: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9953; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 43. **PR** $100 per year. **JE** C11, C61, C63, C88. **KW** Mixed Integers. Cutting Planes. Valid Inequalities. Knapsack Constraints.

AB This survey presents cutting planes that are useful or potentially useful in solving mixed integer programs. Valid inequalities for I) general integer programs, ii) problems with local structure such as knapsack constraints, and iii) problems with 0-1 coefficient matrices, such as set packing, are examined in turn. Finally the use of valid inequalities for classes of problems with structure, such as network design, is explored.

Martin, Alexander

TI Cutting Planes in Integer and Mixed Integer Programming. **AU** Marchand, Huges; Martin, Alexander; Weismantel, Robert; Wolsey, Laurence.

Martin, Philippe

PD April 1997. **TI** The Exchange Rate Policy of the Euro: a Matter of Size? **AA** Institut des Hautes etudes Internationale de Geneve and CEPII. **SR** CEPII Working Paper: 97/06; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 35. **PR** Free. **JE** E52, E58, F31, F33. **KW** Monetary Policy.

European Union. Exchange Rates. Country Size. Euro.
AB The authors argue that country size matters as a determinant of monetary policy in an open economy and volatility because it changes the incentive to use monetary policy to influence the exchange rate. This paper starts from this size effect of EMU and exploits it to analyze from a theoretical and empirical point of view the question of exchange rate policy with the EMU. One way to analyze this size effect in economic terms is to interpret the creation of the euro as implying a change in the relative size of players in international monetary relations. From game theory, it is known that the size of players matters. The authors construct a model which gives a central role to country size as a determinant of monetary policies and exchange rate variability. They then test its empirical implications and exploit the results to suggest some consequences for the euro exchange rate.

Martinez Peria, Maria Soledad

PD May 1997. **TI** Understanding Devaluations in Latin America: A "Bad Fundamentals" Approach. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/086; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 31. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E52, E63, F31, F32. **KW** Devaluations. Exchange Rates. Latin America.
AB This paper is an empirical study of the determinants of Latin American devaluations during the period between 1957 and 1988. The estimation of probabilities of devaluation is done using logit analysis. The empirical results show that reserves, the real exchange rate, the share of domestic credit to the public sector and the current account deficit have a significant effect on the likelihood of a devaluation. In summary, this paper confirms the view that devaluations in Latin America are a consequence of the state of fundamentals in these economies.

Mas-Colell, Andreu

TI A Note on the Decomposition (at a Point) of Aggregate Excess Demand on the Grassmannian. **AU** Gottardi, Piero; Mas-Colell, Andreu.

Masson, Paul

TI Was the French Franc Crisis a Sunspot Equilibrium? **AU** Jeanne, Olivier; Masson, Paul.

Mathai, Koshy

TI Optimal CO2 Abatement in the Presence of Induced Technological Change. **AU** Goulder, Lawrence H.; Mathai, Koshy.

Mauleon, Ana

PD March 1999. **TI** Coalitional Negotiation. **AU** Mauleon, Ana; Vannetelbosch, Vincent. **AA** Basque Country University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9920; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 23. **PR** $100 per year. **JE** C71, C72, C78. **KW** Coalition Formation. Inspections. Positive Spillovers. Largest Consistent Set.
AB We develop a two-stage negotiation model to study the impact of costly inspections on both the coalition formation outcome and the per- member payoffs. In the first stage, the players are forming coalitions and inside each coalition formed the members share the coalition benefits. We adopt the largest consistent set (LCS) to predict which coalition structures are possibly stable. We also introduce a refinement, the largest cautious consistent set (LCCS). In the second stage, the inspection game takes place inside each coalition. For games with positive spillovers, many coalition structures may belong to the LCS under costless inspection. The grand coalition, which is the efficient coalition structure, always belongs to the LCS and is the unique one to belong to the LCCS. Under costly inspection, the grand coalition does not always belong to the LCS. Nevertheless, there exist inspection cost parameters such that the LCS singles out the grand coalition.

Mauro, Paolo

TI Deconstructing Job Creation. **AU** Garibaldi, Pietro; Mauro, Paolo.

Mayer, Christopher J.

PD December 1996. **TI** Unifying Empirical and Theoretical Models of Housing Supply. **AU** Mayer, Christopher J.; Somerville, Tsuriel C. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/12; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 26. **PR** No charge. **JE** E31, E32, R31. **KW** Housing. Land Development. Price Level. Construction Starts. Urban Economics.
AB Housing supply plays an important role in the volatility of macroeconomic cycles and the speed with which house prices respond to changes in demand, yet it is understudied in the current literature. In this paper we present and estimate a new model of the supply of residential construction that is consistent with the theoretical treatment of land development and urban growth. This model shows that new housing construction is best described as a function of changes in house prices and costs rather than as a function of the levels of those variables. Our estimates suggest a fairly moderate response of supply to house price changes. A 10 percent rise in real house prices leads to an 0.8 percent increase in the housing stock, which is accomplished by a temporary 180 percent increase in the average number of quarterly starts, spread over four quarters.

McCallum, Bennett T.

PD June 1998. **TI** Performance of Operational Policy Rules in an Estimated Semi- Classical Structural Model. **AU** McCallum, Bennett T.; Nelson, Edward. **AA** McCallum: Carnegie Melon University and National Bureau of Economic Research. Nelson: Carnegie Melon University. **SR** National Bureau of Economic Research Working Paper: 6599; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E31, E37, E42, E52. **KW** Monetary Policy. Rule Operationality. Price Adjustments. Instrumental Variables. Policy Design.
AB This paper reports results of simulation exercises that explore several questions relating to the design of rules for

monetary policy. Emphasis is given to issues raised by the concept of rule operationality, i.e., reliance on feasible instrumental variables and information sets. Many of the results pertain to rules of the Taylor type -- i.e., with an interest rate instrument set in response to inflation and output-gap measures -- but some are reported for rules using a nominal income target and/or a monetary base instrument. The macroeconomic model utilized is small in scale but features a specification designed to represent rational dynamic optimizing choices by the economy's private agents. Saving and portfolio-balance behavior are expressed by optimizing versions of exceptional IS and LM functions, with gradual price adjustments specified differently in two variants of the model. Parameter values are estimated by instrumental variables on U.S. quarterly data for 1995-1996.

McClellan, Mark

TI The Costs and Benefits of Intensive Treatment for Cardiovascular Disease. **AU** Cutler, David M.; McClellan, Mark; Newhouse, Joseph.

McCormick, Thomas S.

TI A Faster Capacity Scaling Algorithm For Minimum Cost Submodular Flow. **AU** Fleischer, Lisa; Iwata, Satoru; McCormick, Thomas S.

McDermott, C. John

TI How Persistent are Shocks to World Commodity Prices?
AU Cashin, Paul; Liang, Hong; McDermott, C. John.

McGarry, Kathleen

PD April 1998. **TI** Social Security, Economic Growth, and the Rise in Independence of Elderly Widows in the 20th Century. **AU** McGarry, Kathleen; Schoeni, Robert F. **AA** McGarry: University of California, Los Angeles and National Bureau of Economic Research. Schoeni: RAND. **SR** National Bureau of Economic Research Working Paper: 6511; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** H55, I31, J14, N32. **KW** Elderly Widows. Living Arrangements. Income Growth. Social Security.

AB The share of elderly widows living alone rose from 18 percent in 1940 to 62 percent in 1990, while the share living with adult children declined from 59 percent to 20 percent. This study analyzes the causes of this change and finds that income growth, in particular increased Social Security benefits, was the single most important factor causing the change in living arrangements, accounting for nearly two-thirds of the rise in the share of elderly widows living alone. Changes in benefits from the mean-tested OAA/SSI programs had a lesser impact on the decision to live alone but were a significant factor in explaining changes in the living arrangements of the poorest widows. Furthermore, contrary to recent work, we find no evidence that the effect of income on living arrangements became stronger over the period; income had a substantial positive effect on the propensity to live alone as early as the 1940's and 1950's. Finally, the substantial changes observed in the composition of the population with respect to age, race, immigrant status, schooling, and completed fertility explain a relatively small share of the changes in living arrangements.

McIntosh, James

PD February 1998. **TI** Duality Theory and the Consistent Estimation of Technological Parameters: Why Cost Function Estimation can be Wrong. **AU** McIntosh, James; Sims, William A. **AA** McIntosh: University of Copenhagen and Concordia University.. Sims: Concordia University. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/01; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 10. **PR** Free. **JE** C15, C51, D21, D24. **KW** Cost Functions. Duality. Estimation. Price Uncertainty. Monte Carlo.

AB In this article we show that technological parameter estimates obtained by estimating a cost function that is derivable as the dual of a production function can be biased and inconsistent if the stochastic structure of the model arises from certain types of behavioral assumptions made about rational agents. We consider a specific example in which firms are uncertain about prices. We show that when actual prices differ from expected prices and firms have to make decisions on the basis of their expectations, the inherited stochastic specification of the dual system is highly non-linear in the disturbance terms making consistent parameter estimation impossible by conventional methods. This is demonstrated by a Monte Carlo simulation study of two text-book examples using synthetic data. It is also shown that this type of result can arise when the researcher derives the error structure from the assumption that agents make optimization errors.

PD February 1998. **TI** Wage Determination and Employment in Traditional Agriculture. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/02; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 15. **PR** Free. **JE** D82, J31, J32, J43, J64. **KW** Wages. Involuntary Unemployment. Underemployment. Supervision Costs. Agriculture.

AB Wages in traditional agrarian societies are often observed to be above reservation wages even in the slack season when markets are in a state of excess labor supply. Models of non-cooperative wage setting by landlords which explicitly take account of the costs of supervising hired labor and emphasize worker heterogeneity are developed and analyzed. Both symmetric and asymmetric information cases are considered. Conditions are given for the existence of competitive equilibria and their relationship to Nash equilibria. Nash equilibria are shown to be more likely to exist. Nash equilibria exhibit wage dispersion and involuntary unemployment or underemployment with identical workers earning different wage rates.

McKenna, Mark R.

TI Glucksman Fellowship Program Student Research Reports. **AU** Chang, Isaac J.; Kapusta, Matthew C.; McKenna, Mark R.

McLaughlin, Michael P.

TI A Bayesian VAR Forecasting Model for the Philadelphia Metropolitan Area. **AU** Crone, Theodore M.; McLaughlin, Michael P.

Mendoza, Juan

TI Butter and Guns: Complementarity Between Economic and Military Competition. **AU** Grossman, Herschel I.; Mendoza, Juan.

Menezes, Flavio M.

PD August 1998. **TI** Discrete Public Goods with Incomplete Information. **AU** Menezes, Flavio M.; Monteiro, Paulo K.; Temimi, Akram. **AA** Menezes: Australian National University. Monteiro: University of Copenhagen. Temimi: University of Alabana. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/11; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 14. **PR** Free. **JE** C70, D82, H41. **KW** Public Goods. Incomplete Information. Continuous Distributions. Game Theory.

AB This paper investigates a simultaneous discrete public good provision game with incomplete information. To use the terminology of Admati and Perry (1991), the authors consider both contribution and subscription games. In the former, contributions are not refunded if the project is not completed, while in the latter they are. In the presence of complete information about individuals' valuations for the public good, the difference between the equilibrium outcomes of a subscription game and a contribution game is not significant. However, there is both casual evidence from the fund-raising literature and experimental evidence that subscription games are "superior", i.e., a refund increases the chance of providing the good given that it is efficient to do so. The authors' analysis shows that this is indeed the case in the presence of incomplete information. The authors compute a symmetric equilibrium for the subscription game and show that it is not necessarily efficient.

Mester, Loretta J.

TI Optimal Financial Contracts For Large Investors: The Role of Lender Liability. **AU** Berlin, Mitchell; Mester, Loretta J.

PD December 1998. **TI** Checking Accounts and Bank Monitoring. **AU** Mester, Loretta J.; Nakamura, Leonard I.; Renault, Micheline. **AA** Mester: Federal Reserve Bank of Philadelphia and University of Pennsylvania. Nakamura: Federal Bank of Philadephia. Renault: Universite du Quebec a Montreal. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 98/25; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 19. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** G21, G28. **KW** Banking. Deposit Insurance. Loans. Monitoring. Checking Accounts.

AB Do checking accounts help banks monitor borrowers? If they do, the rationale both for allowing regulated providers of liquidity to also make risky loans to commercial borrowers and for the government's providing deposit insurance becomes clearer. Using a unique set of data that includes monthly and annual information on small-business borrowers at an anonymous Canadian bank, the authors provide evidence that a bank has exclusive access to a continuous stream of borrower data that helps it to monitor the borrower, namely, the firm's checking account balances at the bank. The authors directly examine the mechanism through which a bank is able to gain an information advantage over other types of lenders and find evidence that checking account information is indeed relatively transparent for monitoring borrowers' collateral and that such monitoring is useful in detecting problems with loans. As such, the data provide "smoking gun" evidence that banks are special.

TI What Explains the Dramatic Changes in Cost and Profit Performance of the U.S. Banking Industry? **AU** Berger, Allen N.; Mester, Loretta J.

TI Financial Contracts and the Legal Treatment of Informed Investors. **AU** Berlin, Mitchell; Mester, Loretta J.

Metcalf, Gilbert E.

PD May 1998. **TI** A Distributional Analysis of an Environmental Tax Shift. **AA** Tufts University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6546; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 29. **PR** $5.00. **JE** D31, H22, H23, Q28. **KW** Tax Progressivity. Green Tax. Tax Reform. Consumption Tax.

AB Data from the 1994 Consumer Expenditure Survey and other sources are used to measure the distributional impact of green tax and consumption tax reforms using annual income and lifetime income approaches. A reform with environmental taxes equal to 10 percent of federal receipts has a negligible impact on income distribution when the funds are rebated through reductions in payroll and personal income taxes. The degree of income shifting can be adjusted by changing how the revenues are returned to households. It is possible to increase the progressivity of the tax system with an environmental tax reform. With a tax reform that shifts the tax base from income to consumption, it is difficult to maintain the level of progressivity that exists under the current income tax although the regressivity of the reform could be blunted. Whether the long-term growth gains from consumption tax reform would offset the initial increase in regressivity remains to determined. Greater reliance on environmental taxes would reduce the progressivity of the tax system. This analysis indicates that reforms can be designed to preserve the existing income distribution. In fact, distributional neutrality appears easier to maintain with a Green tax reform than with a comprehensive consumption tax reform.

Michel, Philippe

TI The Role of Education Supply in Economic Growth and the Dynamics of Skills. **AU** Barthelemy, Vincent; Michel, Philippe.

PD September 1999. **TI** Social Security and Early Retirement in an Overlapping-Generations Growth Model. **AU** Michel, Philippe; Pestieau, Pierre. **AA** Michel: IUP and GREQAM, Marseille, France. Pestieau: Liege, Belgium, Louvain-la-Neuve and DELTA, Paris, France. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9951; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 16. **PR** $100 per year. **JE** D90, H55, J14, J26. **KW** Pay-As-You-Go. Pensions. Mandatory Retirement. Overlapping- Generations.

AB This paper explains why workers retire earlier, and earlier at the same time as society becomes more and more indebted through increasing pay-as-you-go pension liabilities. To do so, we extend the standard two- overlapping-generations growth model to allow for endogenous labor participation declines as the size of social security system increases. We also show that mandatory early retirement may be socially desirable in case of underaccumulation.

Mihov, Ilian

TI The Liquidity Effect and Long-Run Neutrality. **AU** Bernanke, Ben S.; Mihov, Ilian.

Milano, Joseph

TI Taxes and Investment in Annuities. **AU** Gentry, William M.; Milano, Joseph.

Milchtaich, Igal

PD October 1999. **TI** How Does Selfishness Affect Well-Being? **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9954; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 23. **PR** $100 per year. **JE** C71, C72, D64, L13. **KW** Altruism. Symmetric Games. Cournot Duopoly. Evolutionary Stability.

AB Is selfishness always a bad thing? Can people only be better off when everyone is concerned with the well-being of others as well as with his own, or are there situations in which altruism can actually make things worse for all people involved? This paper tackles this question in the context of two-person symmetric games, which are modified by making the payoff of each player a weighted average of the true payoffs of both players. The exogenously given degree of selfishness, which determines the weight a player attaches to his own payoff, is the same for both players. It is shown that it is not possible for the equilibrium payoffs in the modified games to be lower than every equilibrium payoff in the original game. For example, in a symmetric Cournot duopoly competition, if the two firms move only halfway towards monopoly then their profits may be lower than those of both a monopolist and a duopolist. However, this can happen only if the symmetric equilibria in the original game are, in the appropriate sense, unstable. Thus, the effect of selfishness on the symmetric equilibrium payoffs in a symmetric two-person game depends crucially on the stability of these equilibria.

Millimet, Daniel L.

PD January 1999. **TI** The Impact of Children on Wages, Job Tenure, and the Division of Household Labor. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/13; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 34. **PR** no charge. **JE** D20, J13, J16, J22, J31. **KW** Covariance Restrictions. Children. Time Allocation. Wage Differentials. Tenure.

AB Lacking typical exclusion restrictions, covariance restrictions are used to obtain consistent estimates of the effects of children separately on various male and female behaviors. In a sample of younger couples, children are significant determinants of the female shadow wage and home time and the male shadow wage; however, exogeneity is not rejected in any equation. In an older sample, children significantly affect the male wage, shadow wage, and job tenure, as well as the female shadow wage, home time, and job tenure. In addition, exogeneity is rejected for the majority of the outcomes. Finally, if the average household had one less child, the male-female wage differential would decrease by 9.5 percent.

TI Estimation of Coherent Demand Systems with Many Binding Non- Negativity Constraints. **AU** Pitt, Mark M.; Millimet, Daniel L.

Milyo, Jeffrey

PD March 1998. **TI** The Effect of Price Advertising on Prices: Evidence in the Wake of 44 Liquormart. **AU** Milyo, Jeffrey; Waldfogel, Joel. **AA** Milyo: Tufts University. Waldfogel: University of Pennsylvania and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6488; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 29. **PR** $5.00. **JE** D49, K20, L15, L81. **KW** Advertising. Price Determination. Alcoholic Beverages.

AB In May 1996 the U.S. Supreme Court struck down Rhode Island's ban on advertising prices of alcoholic beverages, making Rhode Island the subject of a natural experiment for measuring the impact of advertising on prices. Using Massachusetts prices as controls, we find that while advertising stores substantially cut prices of advertised products, prices of other products, at both advertising and non-advertising stores, rise under the advertising regime. We investigate stores' pricing responses to rival's price advertising and find that small, non-advertising stores raise their prices of products advertised by rivals beyond their baseline price increase, while larger, advertising stores raise by less their prices of rival-advertised products. We find no reductions in price dispersion across stores with the introduction of price advertising. However, those stores that choose to advertise do have lower average prices both before and after the law change. Indirect information on quantities sold, based on Rhode Island Lottery ticket sales, indicate that newspaper-advertising stores draw a higher share of customers after they advertise than before.

Minelli, Enrico

PD July 1999. **TI** Nash-Walras Equilibria of a Large Economy. **AU** Minelli, Enrico; Polemarchakis, Heracles M. **AA** Minelli: Universita di Brescia. Polemarchakis: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9943; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 7. **PR** $100 per year. **JE** D51, D52, D82. **KW** Nash. Walras. Equilibrium. Asymmetric Information.

AB Individuals exchange contracts for the delivery of commodities in competitive markets and, simultaneously, act strategically; actions affect utilities across individuals directly or through the payoffs of contracts. This encompasses economies with asymmetric information. Nash- Walras equilibria exist for large economies, even if utility functions are not quasi-concave and choice sets are not convex, which is the case in standard settings; the separation of the purchase from the sale of contracts and the pooling of the deliveries on contracts guarantee that the markets for commodities clear.

TI Arbitrage and Equilibrium with Exchangeable Risks. **AU** Heifetz, Aviad; Minelli, Enrico; Polemarchakis, Heracles M.

TI Incentive Compatible Core and Competitive Equilibria in

Differential Information Economies. AU Forges, Francoise; Heifetz, Aviad; Minelli, Enrico.

Mishkin, Frederic S.

TI Rethinking the Role NAIRU in Monetary Policy: Implications of Model Formulation and Uncertainty. AU Estrella, Arturo; Mishkin, Frederic S.

Mitchell, Olivia S.

TI Health Problems as Determinants of Retirement: Are Self-Rated Measures Endogenous? AU Dwyer, Debra Sabatini; Mitchell, Olivia S.

Mitra, Devashish

TI A Theory of Unilateralism and Reciprocity in Trade Policy. AU Krishna, Pravin; Mitra, Devashish.

Mojon, Benoit

PD June 1997. TI Looking for French Monetary Policy (A Structural VAR Approach). AA CEPII. SR CEPII Working Paper: 97/10; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. PG 52. PR Free. JE E51, E52, E58, G18, G21. KW Monetary Policy Shocks. Financial Markets. Central Banks. Banking. Liquidity.

AB France undertook reforms of financial markets in the middle of the eighties. The two major changes of financial markets with respect to monetary policy were the end of its implementation through "encadrement du credit" and the move toward complete free circulation of capital. Two major macroeconomic achievements have been observed since these changes took place. Hence this paper's identification of French monetary policy shocks as the preliminary stage toward a better understanding of French monetary policy during this period. This paper uses Vector Autoregressive Models to disentangle exogenous monetary policy shocks from the endogenous developments of macroeconomic variables and to focus on two aspects of French financial markets reforms which are essential to monetary policy. First, do the new procedures of monetary policy implementation make the stance of Banque de France (BdF) monetary policy more readable? Second, does the free circulation of capital leave the BdF any room for maneuver?.

TI The Euro and Exchange Rate Stability. AU Benassy-Quere, Agnes; Mojon, Benoit; Pisani-Ferry, Jean.

TI EMU and Transatlantic Exchange Rate Stability. AU Benassy-Quere, Agnes; Mojon, Benoit.

TI The International Role of the Euro. AU Benassy-Quere, Agnes; Mojon, Benoit; Schor, Armand-Denis.

TI Sacrifice Ratios in Europe: A Comparison. AU Boone, Laurence; Mojon, Benoit.

Mongardini, Joannes

PD July 1999. TI Ratchet Effects in Currency Substitution: An Application to the Kyrgyz Republic. AU Mongardini, Joannes; Mueller, Johannes. AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/99/102; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. PG 21. PR not available. JE E41, E52, F31. KW Currency Substitution. Ratchet Effects. Monetary Policy. Transition Economies. Kyrgyz.

AB Currency substitution is now a common issue in the design of monetary policy in most transition economies. This paper analyzes the persistence of this phenomenon in the Kyrgyz Republic by including a ratchet variable in the model specification. The main conclusion of the paper is that, while some degree of persistence is present in the allocation of bank deposits, currency substitution in the economy at large has not yet reached a point where reversing it would be difficult. In this regard, there is still room for monetary policy to influence currency allocation in the private sector.

Monteiro, Paulo K.

TI Discrete Public Goods with Incomplete Information. AU Menezes, Flavio M.; Monteiro, Paulo K.; Temimi, Akram.

Mookherjee, Dilip

TI Expenditure Decentralization and the Delivery of Public Services in Developing Countries. AU Bardhan, Pranab; Mookherjee, Dilip.

Mueller, Johannes

TI Ratchet Effects in Currency Substitution: An Application to the Kyrgyz Republic. AU Mongardini, Joannes; Mueller, Johannes.

Mulder, Christian

TI External Vulnerability in Emerging Market Economies: How High Liquidity Can Offset Weak Fundamentals and the Effects of Contagion. AU Bussiere, Matthieu; Mulder, Christian.

Mullahy, John

PD April 1998. TI It'll Only Hurt a Second? Microeconomic Determinants of Who Gets Flu Shots. AA University of Wisconsin-Madison and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 6500; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. PG not available. PR $5.00. JE I12, I18, J18, J22. KW Immunization Propensity. Demographic Determinants. Labor Supply. Preventative Medicine.

AB Appreciating how propensities to be immunized against the flu depend on individual characteristics and environments is essential if policies regarding influenza control are to be sensibly formulated. Beyond epidemiology, there are some important economic issues that must be addressed if the determinants of this form of preventive care are to be comprehensively understood. One concerns the relationship between labor supply and the propensity to be immunized: While it is costly (in terms of time costs) for workers to obtain immunizations, it is also workers who are likely to have relatively most to lose from being ill with the flu. Another concern not generally appreciated is the extent to which individuals' perceived risks of infection may affect their propensities to be immunized. The analysis is based on data from the 1991 National Health Interview Survey. Immunization propensity displays the expected patterns by age and health status, while the results with respect to race, household structure, income and insurance are somewhat more surprising and/or novel. The estimated labor supply and perceived risk effects suggest that some aspects of the economics of preventive care generally not considered in empirical work are - at least in this application -- important and merit further consideration.

Mullainathan, Sendhil

TI Is There Discretion in Wage Setting? A Test Using Takeover Legislation. **AU** Bertrand, Marianne; Mullainathan, Sendhil.

PD October 1998. **TI** Executive Compensation and Incentives: The Impact of Takeover Legislation. **AU** Mullainathan, Sendhil; Bertrand, Marianne. **AA** Mullainathan: Massachusetts Institute of Technology and National Bureau of Economic Research. Bertrand: Princeton University and National Bureau of Economic Research. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/20; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 38. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** D21, D82, G30, J33, J41. **KW** Executive Compensation. Takeovers. Principal Agent. Incentives. Labor Contracts.

AB We investigate the impact of changes in states' anti-takeover legislation on executive compensation. We find that both pay for performance sensitivities and mean pay increase for the firms affected by the legislation (relative to a control group). These findings are partially consistent with an optimal contracting model of CEO pay as well as with a skimming model in which reduced takeover fears allow CEOs to skim more. We compute lower bounds on the relative risk aversion coefficients implied by our findings. These lower bounds are relatively high, indicating that the increase in mean pay may have been more than needed to maintain CEOs' individual rationality constraints. Under both models however, our evidence shows that the increased pay for performance offsets some of the incentive reduction caused by lower takeover threats.

PD October 1998. **TI** Network Effects and Welfare Cultures. **AU** Mullainathan, Sendhil; Bertrand, Marianne; Luttmer, Erzo E. P. **AA** Mullainathan: Massachusetts Institute of Technology. Bertrand: Princeton University and National Bureau of Economic Research. Luttmer: University of Chicago. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/21; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 49. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** D83, H53, I38, J61, R20. **KW** Social Networks. Peer Effects. Social Norms. Welfare. Public Assistance.

AB This paper empirically examines the role of social networks in welfare participation. Empirical work has found it difficult to distinguish the effect of networks from unobservable characteristics of individuals and areas. The authors use data on language spoken to infer better an individual's network within an area. Individuals who are surrounded by others speaking their language have a larger pool of available contacts. Moreover, the network influence of this pool will depend on their welfare knowledge. The authors, therefore, focus on the differential effect of increased contact availability: does being surrounded by others who speak the same language increase welfare use more for individuals from high welfare using language groups? The results strongly confirm the importance of networks in welfare participation. The authors deal with omitted variable bias in several ways. Both instrumentation and removal of education controls have little impact on the estimates.

Mulligan, Casey B.

PD May 1998. **TI** Substitution over Time: Another Look at Life Cycle Labor Supply. **AA** University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6585; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 49. **PR** $5.00. **JE** E24, I38, J22. **KW** Labor Supply. Life Cycle. Intertemporal Substitution. Welfare.

AB Most studies of the intertemporal substitution of work use life cycle data and, from those studies, many have concluded that intertemporal labor substitution is unimportant for macroeconomics. This paper takes another look at life cycle data and argues that a consideration of measurement errors, taxes, on-the-job training, older workers, hours reporting bias, and all of the "margins" composing aggregate labor supply over the life cycle suggests that substitution over time may be very important for macro fluctuations. The life cycle data used includes fairly standard male cross-section and panel data samples as well as a sample of women experiencing the termination of AFDC benefits as their youngest child turns 18 years old.

Mussa, Michael

PD July 1999. **TI** The IMFApproach to Economic Stabilization. **AU** Mussa, Michael; Savastano, Miguel A. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/104; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 37. **PR** not available. **JE** E52, E61, F33, F34, F41. **KW** IMF-Supported Programs. Stabilization. Quantitative Approach. Macroeconomic Policy.

AB This paper explains the IMF approach to economic stabilization. It argues that a Fund-supported program is a process, comprising six broadly defined phases, that evolves along a multiplicity of potential pathways. The paper discusses the three-pronged approach to stabilization at the core of all IMF-supported programs, stresses the iterative character of "financial programming," and explains the rationale for setting quantitative performance criteria for fiscal and monetary policy in IMF-supported arrangements. A main theme is that IMF-supported programs contain a great deal of flexibility to respond both to differences in circumstances and to changes in conditions in individual cases.

Myers, Stewart C.

PD May 1998. **TI** Outside Equity Financing. **AA** Massachusetts Institute of Technology and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6561; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 42. **PR** $5.00. **JE** G32. **KW** Corporate Finance. Financing Policy. Equity Financing. Control.

AB This paper explores the necessary conditions for outside

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

equity financing when insiders, that is managers or entrepreneurs, are self- interested and cash flows are not verifiable. Two control mechanisms are contrasted: a "partnership," in which outside investors can commit assets for a specified period, and a "corporation," in which assets are committed for an indefinite period but insiders can be ejected at any time. The paper also shows how going public to reduce outsiders' power can be efficient if it preserves appropriate incentives for insiders. The concluding section explains how the difficulty of verifying the act of investment leads to monitoring costs and insiders' pursuit of private benefits of control.

Nagayasu, Jun

TI Determinants of Angola's Parallel Market Real Exchange Rate. **AU** Gelbard, Enrique A.; Nagayasu, Jun.

Nakamura, Leonard I.

TI Checking Accounts and Bank Monitoring. **AU** Mester, Loretta J.; Nakamura, Leonard I.; Renault, Micheline.

TI Measuring Housing Services Inflation. **AU** Crone, Theodore M.; Nakamura, Leonard I.; Voith, Richard.

Nayman, Laurence

TI Interest Rates in East Asia Countries: Internal Financial Structures and International Linkages. **AU** Bensidoun, Isabelle; Coudert, Virginie; Nayman, Laurence.

Ndung'u, Njuguna S.

TI A Dynamic Model of Inflation for Kenya, 1974-1996. **AU** Durevall, Dick; Ndung'u, Njuguna S.

Nelson, Edward

TI Performance of Operational Policy Rules in an Estimated Semi- Classical Structural Model. **AU** McCallum, Bennett T.; Nelson, Edward.

Nelson, Lee

PD November 1999. **TI** Dividend Policy and Clientele Rationality. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/39; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 51. **PR** $5.00 each; $100.00 yearly subscription. **JE** G31, G32, G35. **KW** Corporate Finance. Dividends. Investment Policy.

AB This paper examines a firm's dividend and investment policies in a model in which some investors are not aware of some of the firm's investments. These naive investors attribute all dividend changes to earnings changes, although the change in dividend is sometimes due to an investment opportunity. We show that when the investment cost is incurred the firm is under-priced. Conversely, when the investment pays off, the firm is over-priced. The model predicts that naive investors sell to sophisticated investors after a dividend decrease, and conversely following a dividend increase. Generally, the firm's investment policy is suboptimal, typically involving under-investment. Surprisingly, having more naive investors sometimes brings the investment level closer to first best. Our model has several testable implications, some of which are supported by recent empirical studies.

Nesterov, Yurii

PD November 1998. **TI** Global Quadratic Optimization via Conic Relaxation. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9860; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 23. **PR** $100 per year. **JE** C10, C61. **KW** Conic Relaxation. Convex Constraints. Indefinite Quadratic. Relative Accuracy.

AB We present a convex conic relaxation for a problem of maximizing an indefinite quadratic form over a set of convex constraints on the squared variables. We show that for all these problems we get at least 12/37- relative accuracy of the approximation. In the second part of the paper we derive the conic relaxation by another approach based on the second order optimality conditions. We show that for l-sub-p balls, p greater than or equal to 2, intersected by a linear subspace, it is possible to guarantee (1-2/p)-relative accuracy of the solution. As a consequence, we prove (1-(1/(e ln n))-relative accuracy of the conic relation for an indefinite quadratic maximization problem over an n- dimensional unit box with homogenous linear equality constraints. We discuss the implications of the results for the discussion around the question P = NP.

TI Optimization Formulations and Static Equilibrium in Congested Transportation Networks. **AU** De Palma, Andre; Nesterov, Yurii.

PD February 1999. **TI** Stable Flows in Transportation Networks. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9907; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 17. **PR** $100 per year. **JE** C62, R41. **KW** Static Equilibrium. Transportation Congestion. Transportation Networks. Existence of Equilibrium.

AB In this paper we develop a new theory of static equilibrium in congested transportation networks. Our considerations are based on a physical meaning of the flows rather than on an artificially chosen model of travel time functions. We introduce a concept of the stable equilibrium and prove the existence theorems.

PD March 1999. **TI** Global Quadratic Optimization on the Sets With Simplex Structure. **AA** Louvain-la-Neuve. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9915; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 13. **PR** $100 per year. **JE** C61. **KW** Global Optimization. Quadratic Optimization. Simplex. Relative Accuracy.

AB In the first part of this paper we prove that the global quadratic optimization problem over a simplex can be solved with a constant relative accuracy. In the second part we consider some natural extensions of the result.

Neumark, David

PD April 1998. **TI** The Effects of Minimum Wages on the Distribution of Family Incomes: A Non-Parametric Analysis. **AU** Neumark, David; Schweitzer, Mark; Wascher, William. **AA** Neumark: Michigan State University and National

Bureau of Economic Research. Schweitzer: Federal Reserve Bank of Cleveland. Wascher: Board of Governors of the Federal Reserve System. **SR** National Bureau of Economic Research Working Paper: 6536; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D31, I32, J18, J23. **KW** Minimum Wage. Income Distribution. Employment Effects.

AB The primary goal of a national minimum wage floor is to raise the incomes of poor or near-poor families with members in the work force. However, estimates of employment effects of minimum wages tell us relatively little about whether minimum wages are likely to achieve this goal; even if the disemployment effects of minimum wages are modest, minimum wage increases could result in net income losses for poor and low-income families. In this paper, we present evidence on the effects of minimum wages on family incomes from matched March CPS surveys. Using non-parametric estimates of the distributions of family income relative to needs in states and years with and without minimum wage increases, we examine the effects of minimum wages on this distribution, and on the distribution of the changes in income that families experience. Although minimum wages do increase the incomes of some poor families, the evidence indicates that the overall effects are to increase the proportion of families that are poor and near-poor, and to decrease the proportion of families with incomes between 1.5 and 3 times the poverty level.

PD May 1998. **TI** Labor Market Information and Wage Differentials by Race and Sex. **AA** Michigan State University and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6573; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 26. **PR** $5.00. **JE** D80, J15, J16, J71. **KW** Wages. Gender. Minorities. Discrimination. Information.

AB This paper attempts to test whether information problems in labor markets can explain why minority or female workers are sometimes paid less than equally-qualified, white male workers. OLS regressions of starting wages on current performance indicate that minority workers are paid lower starting wages than white workers with the same eventual performance, among both men and women. This could reflect taste discrimination. However, if employers base starting wages on expected productivity or performance, and average performance is lower for minority workers (as it is in these data), then these estimated differentials could reflect simple statistical discrimination. Average performance of women is if anything higher than that of men, so simple statistical discrimination cannot explain the lower starting wages that women receive. However, more complex models of statistical discrimination suggest that worse labor market information about a particular group can generate lower wages for that group.

PD May 1998. **TI** Youth Labor Markets in the U.S.: Shopping Around vs. Staying Put. **AA** Michigan State University and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6581; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** J24, J31, J63, J64. **KW** Job Stability. Turnover. Labor Markets. Youth. Wages.

AB The need for school-to-work programs is predicated on the view that the "chaotic" nature of youth labor markets in the U.S. is costly because workers drift from one job to another without developing skills, behavior, or other characteristics that in turn lead to higher adult earnings. However, there is also ample evidence that workers receive positive returns to job shopping. This paper asks whether youths in unstable or dead-end jobs early in their careers suffer adverse labor market consequences as adults. In particular, it accounts for the endogenous determination of early job stability as a response to job match quality -- which may also influence adult wages -- using labor market conditions in the early years in the labor market as instrumental variables for the job stability experienced during those years. The instrumental variables estimates generally point to substantial positive effects of early job stability on adult wages.

TI What Does Affirmative Action Do? **AU** Holzer, Harry J.; Neumark, David.

Newey, Whitney K.

PD October 1998. **TI** Nonparametric Estimation of Triangular Simultaneous Equation Models. **AU** Newey, Whitney K.; Powell, James L.; Vella, Francis. **AA** Newey: Massachusetts Institute of Technology. Powell: University of California, Berkeley. Vella: Rutgers University. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/16; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 59. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C13, C14, J22. **KW** Nonparametric Estimation. Simultaneous Equations. Series Estimation. Two-Step Estimators. Additive Models.

AB This paper presents a simple two-step nonparametric estimator for a triangular simultaneous equation model. Our approach employs series approximations that exploit the additive structure of the model. The first step comprises the nonparametric estimation of the reduced form and the corresponding residuals. The second step is the estimation of the primary equation via nonparametric regression with the reduced form residuals included as a regressor. We derive consistency and asymptotic normality results for our estimator, including optimal convergence rates. Finally, we present an empirical example, based on the relationship between the hourly wage rate and annual hours worked, which illustrates the utility of our approach.

PD October 1998. **TI** Undersmoothing and Bias Corrected Functional Estimation. **AU** Newey, Whitney K.; Hsieh, Fushing; Robins, James. **AA** Newey: Massachusetts Institute of Technology. Hsieh: Academia Sinica, Taipei. Robins: Harvard School of Public Health. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 98/17; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 54. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C13, C14. **KW** Functional Estimation. Nonparametric Estimation. Root-N Consistency. Undersmoothing. Influence Functions.

AB There are many important examples of square root of n-consistent estimable functionals that are interesting in econometrics, such as average derivatives and nonparametric consumer surplus. Corresponding estimators may require undersmoothing to achieve square root of n- consistency, due to first order bias in the expected influence function. We give a general bias correction that can be added to a plug-in estimator to remove the need for undersmoothing and improve its higher order properties. We also describe a bootstrap smoothing correction for the nonparametric estimator that achieves analogous results for the plug-in estimator and show that idempotent transformations of the empirical distribution need not require undersmoothing for square root of n-consistency. We find that this bias correction can lead to large efficiency improvements and lower sensitivity to bandwidth choice.

PD February 1999. **TI** Flexible Simulated Moment Estimation of Nonlinear Errors-in-Variables Models. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/02; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 31. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C15, C21, C51. **KW** Nonlinear Regression. Errors-in-Variables. Simulated Moments. Estimation.
AB Nonlinear regression with measurement error is important for estimation from microeconomic data. One approach to identification and estimation is a causal model, where the unobserved true variable is predicted by observable variables. This paper is about estimation of such a model using simulated moments and a flexible disturbance distribution. An estimator of the asymptotic variance is given for parametric models. Also, a semiparametric consistency result is given. The value of the estimator is demonstrated in a Monte Carlo study and an application to estimating Engle Curves.

TI Nonparametric Estimation With Nonlinear Budget Sets. **AU** Blomquist, Soren; Newey, Whitney K.

PD February 1999. **TI** Two-Step Series Estimation of Sample Selection Models. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/04; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 17. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C14, C24, C81. **KW** Sample Selection Models. Semiparametric Estimation. Series Estimation. Two-Step Estimation.
AB Sample selection models are important for correcting for the effects of nonrandom sampling in microeconomic data. This note is about semiparametric estimation using a series approximation to the selection correction term. Regression spline and power series approximations are considered. Consistency and asymptotic normality are shown, as well as consistency of an asymptotic variance estimator.

TI Choosing the Number of Instruments. **AU** Donald, Stephen G.; Newey, Whitney K.

PD February 1999. **TI** Two-Step Estimation, Optimal Moment Conditions, and Sample Selection Models. **AU** Newey, Whitney K.; Powell, James L. **AA** Newey: Massachusetts Institute of Technology. Powell: University of California, Berkeley. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/06; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 28. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C13, C14, C21. **KW** Efficiency. Two-Step Estimation. Sample Selection Models. Semiparametric Estimation.
AB Two step estimators with a nonparametric first step are important, particularly for sample selection models where the first step is estimation of the propensity score. In this paper we consider the efficiency of such estimators. We characterize the efficient moment condition for a given first step nonparametric estimator. We also show how it is possible to approximately attain efficiency by combining many moment conditions. In addition we find that the efficient moment condition often leads to an estimator that attains the semiparametric efficiency bound. As illustrations we consider models with expectations and semiparametric minimum distance estimation.

Newhouse, Joseph

TI The Costs and Benefits of Intensive Treatment for Cardiovascular Disease. **AU** Cutler, David M.; McClellan, Mark; Newhouse, Joseph.

Obstfeld, Maurice

PD March 1997. **TI** Dynamic Seigniorage Theory: An Exploration. **AA** University of California, Berkeley, National Bureau of Economic Research and Centre for Economic Policy Research. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/085; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 40. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** C73, E31, E52, E63. **KW** Seigniorage. Dynamic Games. Time Consistency. Markov Perfect. Monetary Policy.
AB This paper develops a dynamic model of seigniorage in which economies' equilibrium paths reflect the ongoing strategic interaction between an optimizing government and a rational public. The model extends existing positive models of monetary policy and inflation. A central finding is that the public's rational responses to government policies may well create incentives for the government to reduce inflation and the public debt over time. A sufficiently myopic government, however, may provoke a rising equilibrium path of inflation and public debt.

PD May 1997. **TI** Nonlinear Aspects of Goods-Market Arbitrage and Adjustment: Heckscher's Commodity Points Revisited. **AU** Obstfeld, Maurice; Taylor, Alan M. **AA** Obstfeld: University of California, Berkeley. Taylor: Northwestern University. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C97/088; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 24. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** F10, F31, F41. **KW** One Price Law. Purchasing Power Parity. Transaction Costs. Transport Costs. Exchange Rates.
AB This paper proposes that analysis of purchasing power parity and the law of one price should explicitly account for the possibility of "commodity points" -- thresholds delineating a region of no central tendency among relative prices, possibly due to lack of perfect arbitrage in the presence of transaction

costs and uncertainty. The authors devise an econometric method to identify commodity points. Price adjustment is treated as a nonlinear process, and a threshold autoregression offers a parsimonious specification within which both thresholds and adjustment speeds are estimated by maximum likelihood methods. The model performs well using post-1980 data, and yields reasonable parameter estimates: adjustment outside the thresholds might imply half-lives of price deviations measured in months rather than years, and the thresholds correspond to popular rough estimates as to the order of magnitude of actual transport costs. The estimated commodity points appear to be positively related to nominal exchange rate volatility.

PD March 1998. **TI** Regional Nonadjustment and Fiscal Policy: Lessons for EMU. **AU** Obstfeld, Maurice; Peri, Giovanni. **AA** Obstfeld: University of California, Berkeley, CEPR, NBER. Peri: University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/096; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 49. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E32, F15, F31, F33, R23. **KW** Monetary Union. Macroeconomic Adjustment. Fiscal Federalism. Labor Mobility. European Union.

AB How will countries handle idiosyncratic national macroeconomic shocks under the European single currency? The ways in which European countries now react to internally asymmetric shocks provide a better forecast than do the regional response patterns of the United States. This paper compares the U.S. with Germany, Italy, the United Kingdom, and also with Canada. Changes in relative regional real exchange rates are generally small. Outside of the U.S., however, there is more reliance on interregional transfer payments, less on labor migration, and the pace of regional adjustment appears slower. The regional adjustment patterns currently prevailing within European currency unions seem likely to prevail at the national level under the single currency. The authors propose an alternative strategy based on a relaxed stability pact, further strictures against central EU borrowing, labor market and fiscal reform, and the issuance by individual member states of debt indexed to nominal GDP.

PD May 1998. **TI** The Global Capital Market: Benefactor or Menace? **AA** University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6559; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 29. **PR** $5.00. **JE** D82, F02, F31, F41. **KW** Capital Markets. International Markets. Contract Enforcement. Economic Integration.

AB This paper reviews the theoretical functions, history, and policy problems raised by the international capital market. The goal is to offer a perspective on both the considerable advantages the market offers and on the genuine hazards it poses, as well as on the avenues through which it constrains national policy choices. A duality of benefits and risks is inescapable in the real world of asymmetric information and imperfect contract enforcement. I argue, however, that in confronting the global capital market there is no reason to depart from conventional economic wisdom. The way to maximize net benefits is to encourage economic integration while attacking concomitant distortions and other unwanted side-effects at, or close to, their sources.

PD May 1998. **TI** The Global Capital Market: Benefactor or Menace? **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/098; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 29. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** F15, F21, F31, F32, F41. **KW** Capital Markets. Financial Crises. Exchange Rates. Policy Autonomy. Globalization.

AB See the abstract for Obstfeld, Mâuric, May 1998. "The Global Capital Market: Benefactor or Menace?". National Bureau of Economic Research Working Paper: 6559; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org.

PD May 1998. **TI** Foreign Resource Inflows, Saving, and Growth. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/099; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 47. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** F34, F35, F43, O16, O19. **KW** Foreign Aid. Capital Inflows. Investment. Growth. Development.

AB This paper surveys aspects of the empirical and theoretical debate over the effects of foreign resource inflows on the national saving, investment, and growth of developing countries. The paper suggests a methodology for systematically studying the effects of resource inflows, based on standard optimal growth models modified for consistency with key empirical macro relations. A fairly robust normative implication even of representative-agent optimal consumption models is that much if not most of extra permanent resources should be consumed rather than invested.

PD July 1998. **TI** EMU: Ready, or Not? **AA** University of California, Berkeley. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C98/101; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 32. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E32, E58, F02, F33, F41. **KW** EMU. Euro. Economic Integration. Central Banks. Asymmetric Shocks.

AB This paper focuses on two specific hazard areas in the transition from Stage Two to Stage Three of European economic and monetary union (EMU), as well as on some key problems of Stage Three that EMU's monetary and fiscal structures appear ill-prepared to handle. The transitional hazards are the best way to coordinate monetary stances and to lock exchange parities for a smooth switch from eleven national currencies to a single joint currency. A third problem lies behind the difficulty of the transition: the possibility of nationally asymmetric real shocks. The paper goes on to discuss weaknesses in the structure of Stage Three connected with the provision of lender of last resort facilities in the euro zone and the framework for supervising financial institutions. The author considers the past and prospective fiscal adjustments of the EMU 11, and suggests these might pose future difficulties for macroeconomic policy and growth.

TI Saving, Investment, and Gold: A Reassessment of Historical Current Account Data. **AU** Jones, Matthew T.; Obstfeld, Maurice.

PD September 1999. **TI** New Directions for Stochastic Open Economy Models. **AU** Obstfeld, Maurice; Rogoff, Kenneth. **AA** Obstfeld: University of California, Berkeley. Rogoff: Harvard University. **SR** University of California, Berkeley, Center for International and Development Economics Research (CIDER) Working Paper: C99/107; University of California, Berkeley, Institute of Business and Economic Research, F502 Haas #1922, Berkeley, CA 94720-1922. Website: www.haas.berkeley.edu/~iber/wps/econwp.html. **PG** 34. **PR** no charge to academics; single issues $3.50 U.S.; $7.50 International. **JE** E42, E52, F31, F32, F41. **KW** Open Economy. Currency Risk. Pricing to Market. Policy Transmission. Monetary Policy.
AB The paper develops a simple stochastic new open economy macroeconomic model based on sticky nominal wages. Explicit solution of the wage- setting problem under uncertainty allows one to analyze the effects of the monetary regime on welfare, expected output, and the expected terms of trade. Despite the potential interplay between imperfections due to sticky wages and monopoly, the optimal monetary policy rule has a closed-form solution. To motivate our model, we show that observed correlations between terms of trade and exchange rates are more consistent with our traditional assumptions about nominal rigidities than with a popular alternative based on local-currency pricing.

Ohsfeldt, Robert L.

PD March 1998. **TI** Tobacco Taxes, Smoking Restrictions, and Tobacco Use. **AU** Ohsfeldt, Robert L.; Boyle, Raymond G.; Capilouto, Eli I. **AA** Ohsfeldt and Capilouto: University of Alabama, Birmingham. Boyle: HealthPartners Group Health Foundation. **SR** National Bureau of Economic Research Working Paper: 6486; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 14. **PR** $5.00. **JE** H11, H51, I18, L66. **KW** Snuff. Chewing Tobacco. Smoking Restrictions. Tobacco Taxes.
AB The term "smokeless tobacco" (ST) was coined to represent snuff and chewing tobacco as safer alternatives to smoking cigarettes. ST use has increased, particularly among young males. However, relatively little research has been done on mechanisms to control ST use. This paper estimates effects of tobacco excise taxes and public smoking laws on current use of snuff and cigarettes, using data in the Current Population Surveys (CPS) from 1992 and 1993. The sample is restricted to white and black males over 15, yielding a sample of 165,653. This large sample is useful given the relative rarity of self-reported snuff use (1.2% of the sample, in contrast to about 18% for cigarette use). The results indicate that a 1 percent increase in the snuff tax rate reduces the probability of snuff use by 0.10 percent. Similarly, high cigarette taxes appear to reduce cigarette smoking. Regarding cross-tax effects, higher cigarette tax rates are associated with a higher probability of snuff use, demonstrating substitution effects. However, higher snuff tax rates are not associated with greater cigarette use. Finally, laws restricting smoking in workplaces or other public places appear to discourage both cigarette and snuff use, with weaker results for snuff.

Olekalns, Nilss

TI Spend Now, Pay Later? Tax Smoothing and Fiscal Sustainability in South Asia. **AU** Cashin, Paul; Haque, Nadeem; Olekalns, Nilss.

Oliner, Stephen D.

TI Investment Behavior, Observable Expectations, and Internal Funds. **AU** Cummins, Jason G.; Hassett, Kevin A.; Oliner, Stephen D.

Olivei, Giovanni

PD March 1999. **TI** Productivity Shocks, Investment, and the Real Interest Rate. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 99/02; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 31. **PR** No charge. **JE** E22, E32, E43. **KW** Productivity. Interest Rates. Investment. Nominal Rigidities. Business Cycles.
AB This paper analyzes the effects of a favorable shift in expected future productivity on the current level of investment and the real interest rate. In a standard RBC model, an increase in expected future productivity raises the real rate, but decreases the current level of investment for plausible parameter values of the intertemporal elasticity of substitution in consumption. However, it is shown that such a conclusion is unwarranted when nominal rigidities are introduced into the analysis. In contrast to the flexible-price case, the favorable shift in future productivity can lead to an increase in current investment, while at the same time driving up significantly the real rate of interest. The model with nominal rigidities lends theoretical support to the view expressed by some authors that the surge in investment and the real rate across industrialized countries in 1983-84 was caused by a favorable shift in expected future profitability.

PD March 1999. **TI** Fiscal Retrenchment and the Level of Economic Activity. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 99/03; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 29. **PR** No charge. **JE** E31, E32, E62. **KW** Government Expenditures. Real Activity. Nominal Rigidities. Business Fluctuations.
AB I analyze the effects of an expected future reduction in government spending on the current level of economic activity. In a closed-economy dynamic general equilibrium setup with nominal rigidities, it is shown that expected future cuts in government spending generate an increase in current GDP. Nominal rigidities are an essential feature for the emergence of such a result. With perfectly flexible prices but in an otherwise identical setup, an expected future decline in government spending entails no increase in the current level of economic activity.

Olters, Jan-Peter

PD August 1999. **TI** Foreign Exchange Queues, Informal

Traders, and a Zero Premium in the Black Market: A Cape Verdean Puzzle. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/110; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 30. **PR** not available. **JE** F31, F32, F41, G21, O55. **KW** Foreign Exchange Queues. Black Markets. Unrequited Transfers. Banking. Cape Verde.

AB During 1996-98, several indicators hinted at the apparent unsustainability of Cape Verde's exchange rate peg. The country, faced with a considerable backlog of approved but unmet applications for foreign currencies, tolerated a parallel market. Street traders, however, demanded only negligible premiums (if any at all) for foreign exchange. By integrating the emigrants' transfer decisions into a basic Mundell-Fleming-type model, the author conjectures that this puzzle can be explained with the increasing use of transfer channels outside the banking system, leading to unrecorded inflows of foreign exchange. Analysis of the relevant balance of payments data appears to support this result.

Orphanides, Athanasios

PD July 1999. **TI** The Reliability of Output Gap Estimates in Real Time. **AU** Orphanides, Athanasios; van Norden, Simon. **AA** Orphanides: Board of Governors of the Federal Reserve System. van Norden: Ecole des H.E.C, Montreal. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/38; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 45. **PR** no charge. **JE** C22, E32, E62, E63. **KW** Real-Time Data. Output Gap. Business Cycles. Detrending.

AB Although in a policy setting it is necessary to estimate the current (i.e. end-of-sample) output gap without the benefit of knowing the future, most studies concentrate on measurement that employs data that only become available later. This paper examines the reliability of alternative output detrending methods, with special attention to the accuracy of real-time estimates. The authors show that ex post revisions of the output gap are of the same order of magnitude as the output gap itself, that these ex post revisions are highly persistent and that real-time estimates tend to be severely biased around business cycle turning points. The authors investigate the reasons for these revisions, and find that, although important, the ex post revision of published data is not the primary source of revisions in output gap measurements. The bulk of the problem is due to the pervasive unreliability of end-of- sample estimates of the trend in output.

Ottaviano, Gianmarco I. P.

TI Multiproduct Multinationals and Reciprocal FDI Dumping. **AU** Baldwin, Richard E.; Ottaviano, Gianmarco I. P.

PD March 1999. **TI** Monopolistic Competition, Multiproduct Firms and Optimum Product Diversity. **AU** Ottaviano, Gianmarco I. P.; Thisse, Jacques-Francois. **AA** Ottaviano: Universita di Bologna, Italy, Louvain-la-Neuve and Centre for Economic Policy Research. Thisse: Louvain-la-Neuve, Ecole Nationale des Ponts et Chaussees Paris and Centre for Economic Policy Research. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9919; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 24. **PR** $100 per year. **JE** D43, L13, L15. **KW** Product Diversity. Imperfect Competition. Quadratic Utility. Horizontal Differentiation.

AB This paper tackles the issue of optimum product diversity in an imperfectly competitive market with small or large firms. First, it develops a quadratic utility model of monopolistic competition with horizontal product differentiation which avoids some of the main pitfalls of the S-D-S approach (Spence 1976b, Dixit and Stiglitz 1977). Second, it extends the model of the case of multi-product firms showing how product diversity is affected with respect to monopolistic competition. In particular, it is shown that monopolistic competition with single-product firms is the limiting case of oligopolistic competition with multi-product firms when either varieties get more and more differentiated or when the entry cost goes further and further down.

PD July 1999. **TI** Agglomeration and Trade Revisited. **AU** Ottaviano, Gianmarco I. P.; Thisse, Jacques-Francois. **AA** Ottaviano: Universita delgi Studi di Bologna, Universite Catholique de Louvain and Centre for Economic Policy Research. Thisse: Universite Catholique de Louvain, CERAS, Ecole Nationale des Ponts et Chaussees and Centre for Economic Policy Research. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9941; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 21. **PR** $100 per year. **JE** F12, F22, L13, R13. **KW** Agglomeration. Trade. Self-Fulfilling Expectations. Monopolistic Competition.

AB The purpose of this paper is twofold. First, we present an alternative model of agglomeration and trade that displays the main features of the recent economic geography literature while allowing for the derivation of analytical results by means of simple algebra. Second, we show how this framework can be used to adopt a forward-looking approach to the dynamics of migration in the process of agglomeration instead of the myopic Marshallian model used so far in this literature.

Pacula, Rosalie Liccardo

TI An Examination of Gender and Race Differences in Youth Smoking Responsiveness to Price and Tobacco Control Policies. **AU** Chaloupka, Frank J.; Pacula, Rosalie Liccardo.

Pajot, Michael

TI How Foreign Direct Investment Affects International Trade and Competitiveness: An Empirical Assessment. **AU** Fontagne, Lionel; Pajot, Michael.

Pakes, Ariel

TI Differentiated Products Demand Systems From a Combination of Micro and Macro Data: The New Car Market. **AU** Berry, Steven; Levinsohn, James; Pakes, Ariel.

Palia, Darius

TI A Re-Examination of the Conglomerate Merger Wave in the 1960's: An Internal Capital Markets View. **AU** Hubbard, R. Glenn; Palia, Darius.

Palumbo, Michael G.

PD April 1999. **TI** Consumption Smoothing Among Working-Class American Families Before Social Insurance. **AU** Palumbo, Michael G.; James, John A.; Thomas, Mark. **AA** Palumbo: Board of Governors of the Federal Reserve System. James and Thomas: University of Virginia. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/24; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 41. **PR** no charge. **JE** D91, E21, N31. **KW** Unemployment Risk. Permanent Income. Precautionary Saving. Consumption Smoothing. Economic History.

AB This paper examines whether the saving decisions of a large sample of working-class American families around the turn of the twentieth century are consistent with consumption smoothing tendencies in the spirit of the permanent income hypothesis. The authors develop two econometric models to decompose reported annual incomes from micro-data into expected and unexpected components, then they estimate marginal propensities to save out of each component of income. The two methodologies deliver similar regression estimates and reveal empirical patterns consistent with those reported in other recent research based on quite different contemporary household data. Marginal propensities to save out of unexpected income shocks are large relative to propensities based on expected income movements, though the former lie much below one and the latter much above zero. While these data reject strict parameterizations of the permanent income hypothesis, the authors nonetheless conclude that the families' saving decisions look quite "modern.".

Papageorgiou, Yorgos Y.

PD May 1999. **TI** Externalities, Nonconvexity, and Agglomeration. **AU** Papageorgiou, Yorgos Y.; Pines, David. **AA** Papageorgiou: McMaster University. Pine: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 17/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 39. **PR** no charge. **JE** H11, H23, R12, R58. **KW** Externalities. Nonconvexity. Agglomeration. City Size.

AB In this paper we argue that the impact of external scale economies and diseconomies on city size is not nearly as clear-cut as it is tacitly believed in urban economics. Similarly, that city-size distortions are not caused by externalities alone. Nonconvexity, which prevents establishing the 'right' number of cities, may represent a source for city-size distortions which can be stronger than the standard resource misallocation resulting from external scale economies and diseconomies. It follows that a direct population dispersion policy is not just an inferior substitute to Pigovian taxes and subsidies but rather a useful complement.

Parry, Ian W. H.

TI The Cost-Effectiveness of Alternative Instruments for Environmental Protection in a Second-Best Setting. **AU** Goulder, Lawrence H.; Parry, Ian W. H.; Williams, Robert C., III; Burtraw, Dallas.

Passmore, Wayne

TI Pricing Systemic Crises: Monetary and Fiscal Policy When Savers Are Uncertain. **AU** Lehnert, Andreas; Passmore, Wayne.

TI The Banking Industry and The Safety Net Subsidy. **AU** Lehnert, Andreas; Passmore, Wayne.

Pastor, Lubos

PD April 1998. **TI** Costs of Equity Capital and Model Mispricing. **AU** Pastor, Lubos; Stambaugh, Robert F. **AA** Pastor: University of Pennsylvania. Stambaugh: University of Pennsylvania and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6490; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 56. **PR** $5.00. **JE** C11, D81, G12, G31. **KW** Bayesian Analysis. Equity Capital. Equity Costs. Mispricing Uncertainty.

AB Costs of equity for individual firms are estimated in a Bayesian framework using several factor-based pricing models. Substantial prior uncertainty about mispricing often produces an estimated cost of equity close to that obtained with mispricing precluded, even for a stock whose average return departs significantly from the pricing model's prediction. Uncertainty about which pricing model to use is less important, on average, than within-model parameter uncertainty. In the absence of mispricing uncertainty, uncertainty about factor premiums is generally the largest source of overall uncertainty about a firm's cost of equity, although uncertainty about betas is nearly as important.

Pedersen, Torben Mark

PD June 1998. **TI** The Hodrick-Prescott Filter, The Slutzky Effect, and the Distortionary Effect of Filters. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/09; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 14. **PR** Free. **JE** C22, E32. **KW** Detrending. Hodrick-Prescott Filter. Slutzky Effect. Optimal Filtering. Business Cycles.

AB The main contribution of this paper is the construction of a metric based on optimal filtering for measuring the distortionary effect of filters. The Hodrick-Prescott filter (HP-filter) has been criticized for inducing spurious cycles when filtering macroeconomic time series with the "typical spectral shape", the so-called Slutzky-effect. It is shown that the HP-filter is not subject to that critique and that the Slutzky- effect is a special case of a more general pattern of distortions of filters. Based on the theory of optimal filtering, the author derives a frequency domain measure of the size of distortions when defining business cycles as cycles with a period less than a prespecified number of years. The metric is used for two purposes. First, to determine the optimal value of the smoothing parameter lambda in the HP-filter. Secondly, to measure the size of distortions of ten filters including a new Hodrick-Prescott based band pass filter.

PD December 1998. **TI** International Evidence on the Connection between Business Cycles and Economic Growth. **AU** Pedersen, Torben Mark; Elmer, Anne Marie. **AA** Pedersen: University of Copenhagen. Elmer: Ministry of Economic Affairs, Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/23; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 20. **PR** Free. **JE** C22, E32, O40. **KW** Business Cycles. Growth. Trend Breaks. Structural Change. Stochastic Trends.

AB The authors study the hypothesis that there is a connection between business cycles and economic growth. If economic growth and business cycles were completely independent of each other, then changes in the growth rate would be unrelated to dates of business cycle turning points. This is a testable implication, and the authors "test" for a connection between business cycles and economic growth by comparing the dates of business cycle turning points with the dates of estimated trend breaks using quarterly real GDP for14 OECD countries in the postwar period. The authors identify business cycle turning points using a computer algorithm and estimate the timing, size, and character of trend breaks using a general intervention model. They identify 34 trend break dates and 79 percent of these occur at or near business cycle turning points which is interpreted as confirming the hypothesis of a connection between business cycles and economic growth.

PD December 1998. **TI** How Long are Business Cycles? Reconsidering Fluctuations and Growth. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/24; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 39. **PR** Free. **JE** C19, E32, O40. **KW** Business Cycles. Growth. Trends. Optimal Filtering. Spectral Analysis.

AB It is a myth -- a commonly held view which is not supported by empirical evidence -- that the business cycle component has a duration up to eight years. In this paper I pose the question: How long are business cycles when we try to distinguish between business cycles and economic growth? I measure the duration of cycles using a computer algorithm for determining turning points in classical business cycles, recovery cycles, and growth cycles for 11 OECD-countries for the postwar period, and I conclude that the business cycle component is for most countries shorter than six years. I derive the implications for optimal business cycle filtering and for the computation of business cycle stylized facts. The change in the definition of the cyclical component changes computed business cycle stylized facts in a quantitatively important way.

Peek, Joe

PD January 1996. **TI** The International Transmission of Financial Shocks: The Case of Japan. **AU** Peek, Joe; Rosengren, Eric S. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/01; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 37. **PR** No charge. **JE** E44, G15, G21. **KW** International Finance. Banking. Bank Lending. Japan. Financial Shocks.

AB A recent dramatic financial event was the surge in Japanese stock prices that was immediately followed by a decline of over 50 percent. While these stock price fluctuations were domestic financial shocks, the unique institutional characteristics of the Japanese economy produce a framework that is particularly suited to transmit shocks to other countries through the behavior of the Japanese banking system. The large size of Japanese bank lending operations in the United States enables the authors to use U.S. banking data to investigate the extent to which this domestic financial shock was transmitted to the United States, as well as to identify a supply shock to U.S. bank lending that is independent to U.S. loan demand. The authors find that binding risk- based capital requirements associated with the decline in the Japanese stock market resulted in a decline in commercial lending by Japanese banks that was both economically and statistically significant.

PD August 1996. **TI** Derivatives Activity at Troubled Banks. **AU** Peek, Joe; Rosengren, Eric S. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/03; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 29. **PR** No charge. **JE** G13, G21, G28. **KW** Derivatives. Risk. Bank Supervision. Regulation. Banking.

AB We find that a relatively large number of banks active in the derivatives market have low capital ratios and are considered institutions with a significant risk of failure by bank supervisors. However, we also find no evidence that the volume of derivatives activity at troubled banks affects the probability of formal regulatory intervention or even a downgrade in supervisory rating. While derivatives have become an essential instrument for hedging risks, moral hazard can lead to their misuse by problem banks. Given that the absence of comprehensive data on bank derivatives activities prevents an accurate assessment of bank risk-taking, banks have an opportunity to take unmonitored second bets. Troubled banks have the motive to increase risk, and derivatives provide the means to do so. The role of bank supervisors should be to limit the opportunity through more comprehensive data reporting requirements and closer supervisory scrutiny of derivatives activity at problem banks.

PD September 1996. **TI** Will Legislated Early Intervention Prevent the Next Banking Crisis? **AU** Peek, Joe; Rosengren, Eric S. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/05; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 20. **PR** No charge. **JE** G21, G28. **KW** Deposit Insurance. FDICIA. Bank Supervision. Intervention. Banking Crises.

AB A key provision of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) was prompt corrective action (PCA). PCA emphasized early intervention by bank supervisors and was intended to limit forbearance by making supervisory intervention more timely and less discretionary. However, PCA legislation appears to have been oversold. Had PCA been in place during the recent banking crisis in New England, it would have had little, if any, effect. Relative to actions taken by supervisors, PCA provisions would not have imposed more severe restrictions on banks, intervened earlier, or intervened in problem banks that would otherwise have been missed.

PD April 1998. **TI** Does the Federal Reserve Have an Informational Advantage? You Can Bank on It. **AU** Peek, Joe; Rosengren, Eric S.; Tootell, Geoffrey M. B. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/02; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 23. **PR** No charge. **JE** E27, E37, E52, E58, G21. **KW** Central Banks. Bank Supervision. Monetary Policy.

Forecasting. Information.
AB Even in a world with rational expectations, it has been well established theoretically that if the central bank possesses information superior to that available to the public, there is room for effective and socially beneficial countercyclical monetary policy. This paper tests whether confidential information from bank supervisors could be one source of any such informational advantage. In particular, we examine whether information gained from bank supervision activities could substantially improve the forecasts of macroeconomic variables important for guiding monetary policy. We find that confidential supervisory information on bank ratings significantly improves private forecasts of inflation and unemployment rates, thus providing an informational advantage to the Federal Reserve.

PD June 1998. **TI** The Poor Performance of Foreign Bank Subsidiaries: Were the Problems Acquired or Created? **AU** Peek, Joe; Rosengren, Eric S.; Kasirye, Faith. **AA** Peek and Rosengren: Federal Reserve Bank of Boston. Kasirye: Boston College. **SR** Federal Reserve Bank of Boston Working Paper: 98/03; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 26. **PR** No charge. **JE** F23, G21, G34. **KW** Banking. Mergers. Acquisitions. Bank Supervision. Multinational Firms.
AB We examine foreign acquisitions of United States banks around the time of the ownership change to determine whether the observed poor performance of foreign subsidiaries is the result of changes in business strategy or the preexisting characteristics of the target bank. We find that many of the problems were already present at the time of acquisition. However, changes in business strategy by the foreign owners were generally not successful in raising the bank's performance level to that of its domestic peers.

PD October 1998. **TI** Japanese Banking Problems: Implications for Southeast Asia. **AU** Peek, Joe; Rosengren, Eric S. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/07; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 32. **PR** No charge. **JE** F34, G15, G21, O16. **KW** Banking. International Finance. Japan. International Lending. Development.
AB Japanese banks are among the world's largest global financial intermediaries, with a significant presence in many regions, particularly the United States and Southeast Asia. In addition to being among the world's largest banks, they have some of the world's largest problems. This paper examines Japanese banking activities along three dimensions. First, it documents the expansion and the initial stage of retrenchment of lending by Japanese banks in Southeast Asia. Second, the authors examine the response of Japanese banks to their problems at home, as exemplified by their lending behavior in Southeast Asia. The authors evaluate this Japanese bank response relative to that in their home market and in the United States. Third, the Japanese bank response to the problems in Southeast Asia is then compared to that of their U.S. and European competitors. This paper was prepared for the Second Annual Conference of the Central Bank of Chile.

PD December 1998. **TI** Determinants of the Japan Premium: Actions Speak Louder than Words. **AU** Peek, Joe; Rosengren, Eric S. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/09; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 24. **PR** No charge. **JE** F33, F34, G21, G28. **KW** Banking. Japan Premium. Eurodollar. Euroyen. LIBOR.
AB Since August 1995, Japanese banks have had to pay a premium on Eurodollar and Euroyen interbank loans relative to their U.S. and U.K. competitors. This so-called "Japan premium" provides a market indicator of investor anxiety about the ability of Japanese banks to repay loans. We examine the determinants of the Japan premium and find that events indicating concrete actions by the Japanese government reduced the Japan premium. We find that the failure of Yamaichi Securities, which was characterized by large undisclosed losses, contributed to increases in the Japan premium, while the failure of Hokkaido Takushoku did not.

TI The Impact of Greater Bank Disclosure Amidst a Banking Crisis. **AU** Jordan, John S.; Peek, Joe; Rosengren, Eric S.

Perez-Castrillo, David

PD August 1999. **TI** Bidding for the Surplus: A Non-Cooperative Approach to the Shapley Value. **AU** Perez-Castrillo, David; Wettstein, David. **AA** Perez-Castrillo: Universisat Autonoma de Barcelona. Wettstein: Ben- Gurion University of the Negev and Monaster Center for Economic Research. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 24/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 20. **PR** no charge. **JE** C71, C72. **KW** Shapley Value. Implementation. Simple Mechanism. Surplus Allocation.
AB We consider zero-monotonic environments with transferable utility and propose a simple non-cooperative game to determine how the surplus generated by cooperation is to be shared. First, the players bid for the right to propose a sharing of the surplus. Second, after the winner pays the bids, she makes a proposal to each of the other players. If the proposal is rejected, the rest of the players will play the same game again with the proposer left out. If her proposal is accepted, she forms the grand coalition, keeping its value for herself in exchange for the proposed payments to the rest of the players. We show that the final outcome of any subgame perfect equilibrium of this mechanism always coincides with the vector of the Shapley value payoffs. Finally, we extend our results to implement the weighted Shapley values.

Peri, Giovanni

TI Regional Nonadjustment and Fiscal Policy: Lessons for EMU. **AU** Obstfeld, Maurice; Peri, Giovanni.

Peridy, Nicolas

TI Trade Patterns Inside the Single Market. **AU** Fontagne, Lionel; Freudenberg, Michael; Peridy, Nicolas.

Perli, Roberto

TI Regime-Switching in Expectations Over The Business Cycle. **AU** Eudry, Gwen; Perli, Roberto.

Perroni, Carlo

TI The Value of MFN Treatment. **AU** Ghosh, Madanmohan; Perroni, Carlo; Whalley, John.

Persson, Karl Gunnar

TI Market Integration and Transport Costs in France 1825-1903: A Threshold Error Correction Approach to the Law of One Price. **AU** Ejrnaes, Mette; Persson, Karl Gunnar.

Persson, Torsten

TI Lobbying and Legislative Bargaining. **AU** Helpman, Elhanan; Persson, Torsten.

Pestieau, Pierre

TI Direct Versus Indirect Taxation: The Design of the Tax Structure Revisited. **AU** Cremer, Helmuth; Pestieau, Pierre; Rochet, Jean-Charles.

TI Social Security and Early Retirement in an Overlapping-Generations Growth Model. **AU** Michel, Philippe; Pestieau, Pierre.

TI The Political Economy of Social Security. **AU** Casamatta, Georges; Cremer, Helmuth; Pestieau, Pierre.

Petroni, Kathy R.

PD June 1998. **TI** Managing Annual Accounting Reports to Avoid State Taxes: An Analysis of Property-Casualty Insurers. **AU** Petroni, Kathy R.; Shackelford, Douglas A. **AA** Petroni: Michigan State University. Shackelford: University of North Carolina and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6590; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 23. **PR** $5.00. **JE** G22, H25, H71, H73, M41. **KW** Insurance. State Taxation. Accounting. Business Taxes.

AB We hypothesize that, in their annual accounting reports, insurers allocate premiums and losses from multi-state policies to reduce total state taxes. To test this prediction, we examine firm-level data, collected from the publicly-available statutory reports used to compute tax bases and filed with each state government. If insurers manage allocations to avoid taxes, we anticipate an inverse relation between the tax rate and the premium-to-loss ratio, which is the industry's standard measure of the price of a unit of coverage. Firm-specific prices are computed using premium and loss information from the annual regulatory reports filed with each state in which an insurer underwrites. Primary analysis is conducted on 12,573 insurer-state observations from 1993. We find the premium-to-loss ratio is decreasing in state tax rates, consistent with multi-state insurers managing their annual accounting reports to shift premiums (losses) to more (less) favorably taxed states.

Philipson, Tomas

TI The Rise in Old Age Longevity and the Market for Long-Term Care. **AU** Lakdawalla, Darius; Philipson, Tomas.

Phillips, Kerk

PD November 1999. **TI** Schumpeterian Growth and Endogenous Business Cycles. **AU** Phillips, Kerk; Wrase, Jeffrey. **AA** Phillips: Brigham Young University. Wrase: Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/20; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 28. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** E32, O31, O33, O40. **KW** Business Cycles. Growth. Technological Change. Innovation.

AB This paper constructs a dynamic general equilibrium model with an endogenous process for growth and business cycles driven partly by technological discovery and diffusion. The model integrates two branches of the literature. One is literature on Schumpeterian models, in which growth is driven endogenously by attempts to innovate and in which the focus is on low-frequency fluctuations in variables. The other is the Real Business Cycle literature, in which the focus is on high-frequency fluctuations driven by exogenous productivity shocks. The model in this paper has Schumpeterian-style low-frequency fluctuations stemming from random successes in endogenous research and development efforts. Diffusion of innovations in applied research into basic know-how, along with random shocks to productivity, drives high-frequency fluctuations. The model accounts for key properties of actual data without heavy reliance on the exogenous, highly persistent and volatile shocks to productivity typically used in Real Business Cycle analysis.

Piehl, Anne Morrison

TI What Do Prosecutors Maximize?: An Analysis of Drug Offenders and Concurrent Jurisdiction. **AU** Glaeser, Edward L.; Kessler, Daniel P.; Piehl, Anne Morrison.

Pines, David

TI Externalities, Nonconvexity, and Agglomeration. **AU** Papageorgiou, Yorgos Y.; Pines, David.

PD June 1999. **TI** Is Population Dispersion Policy Necessary? **AA** Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 18/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 17. **PR** no charge. **JE** H23, H41, R12, R58. **KW** Population Dispersion. Public Goods. Externalities. Pigovian Taxes.

AB It is common to explain the market failure in efficiently distributing the population among urban areas by externalities associated with un-priced transportation congestion and external scale economies in the supply of private and public goods. Consequently, in prescribing the appropriate corrective policy, Pigovian taxes and subsidies are considered to be the first-best while measures to directly affect the population distribution among cities are considered to be only second-best policy. This paper shows that the above diagnosis may be misleading and, consequently, the implied prescription may be either ineffective or even harmful. In such cases a population dispersion policy is necessary for achieving efficient resource allocation.

Pirotte, Nicolas

TI Co-Integration and Leadership in the European Off-Season Fresh Fruit Market. **AU** Giot, Pierre; Henry De Frahan, Bruno; Pirotte, Nicolas.

Pisani-Ferry, Jean

TI The Euro and Exchange Rate Stability. **AU** Benassy-Quere, Agnes; Mojon, Benoit; Pisani-Ferry, Jean.

Pitt, Mark M.

PD March 1999. **TI** Estimation of Coherent Demand Systems with Many Binding Non- Negativity Constraints. **AU** Pitt, Mark M.; Millimet, Daniel L. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/04; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 19. **PR** no charge. **JE** C30, C40, D11, D12, D20. **KW** Coherency. Gibbs Sampling. Demand Systems. Data Augmentation. Monte Carlo.

AB Two econometric issues arise in the estimation of complete systems of producer or consumer demands when many non-negativity constraints are binding for a large share of observations. The first is computational. The econometric model is essentially an endogenous switching regimes model, which requires the evaluation of multivariate probability integrals. The second is the relationship between demand theory and statistical coherency. If the indirect utility or cost function underlying the demand system does not satisfy the regularity conditions at each observation, the likelihood is incoherent. The solution presented is to use the Gibbs Sampling technique and data augmentation algorithm and rejection sampling. With rejection sampling one can straightforwardly impose only the necessary conditions for coherency, coherency at each data point rather than global coherency. The results highlight the importance of imposing regularity when there are many non- consumed goods and the gains from imposing such conditions locally rather than globally.

Pochet, Yves

TI The Uncapacitated Lot-Sizing Problem With Sales and Safety Stocks. **AU** Loparic, Marko; Pochet, Yves; Wolsey, Laurence A.

Polemarchakis, Heracles M.

TI The Identification of Preferences From the Equilibrium Prices of Commodities and Assets. **AU** Kubler, Felix; Polemarchakis, Heracles M.

PD June 1999. **TI** Debt, Liquidity and Dynamics. **AU** Polemarchakis, Heracles M.; Rochon, Celine. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9934; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 23. **PR** $100 per year. **JE** D91, E32, E52, G21. **KW** Money. Liquidity. Debt. Overlapping Generations.

AB Money, which provides liquidity services, is distinct from debt. The introduction of a bank that issues money in exchange for debt and pays out its profit as dividend to shareholders modifies the model of overlapping generations. The set of equilibrium paths, their dynamic properties, as well as the scope and effectiveness of monetary policy are significantly altered: (1) there is a continuum of pareto comparable steady state paths, indexed by the nominal rate of interest; (2) monetary policy, which is effective, can set, alternatively, the nominal rate of interest, the circulation of real balances or the rate of inflation; and (3) though low rates of interest are associated with superior steady state allocations, they may account for unstable steady states or stable endogenous cycles.

TI Nash-Walras Equilibria of a Large Economy. **AU** Minelli, Enrico; Polemarchakis, Heracles M.

TI Arbitrage and Equilibrium with Exchangeable Risks. **AU** Heifetz, Aviad; Minelli, Enrico; Polemarchakis, Heracles M.

Powell, James L.

TI Nonparametric Estimation of Triangular Simultaneous Equation Models. **AU** Newey, Whitney K.; Powell, James L.; Vella, Francis.

TI Two-Step Estimation, Optimal Moment Conditions, and Sample Selection Models. **AU** Newey, Whitney K.; Powell, James L.

Prati, Alessandro

TI Signaling Fiscal Regime Sustainability. **AU** Drudi, Francesco; Prati, Alessandro.

Queyranne, Maurice

TI Single Machine Scheduling With Release Dates. **AU** Goemans, Michel X.; Queyranne, Maurice; Schulz, Andreas S.; Skutella, Martin; Wang, Yaoguang.

Racionero, Maria del Mar

PD February 1999. **TI** Optimal Redistribution With Unobservable Preferences for an Observable Merit Good. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9909; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 18. **PR** $100 per year. **JE** D63, H21, H23, H41. **KW** Merit Goods. Non-Linear Taxes. Tax Schedules. Social Welfare.

AB This paper considers a government that seeks both to redistribute income and to encourage or discourage the consumption of a certain good. This good is assumed to be either a merit or demerit good. Individuals differ in their exogenous income and in their preferences for the merit good. The government can perfectly observe the level of consumption of the merit good. However, it cannot observe neither income nor preferences. The only observable variable is thus each individual's consumption of the merit good. In order to account for merit good considerations, we consider a modification of the utilitarian social welfare function in which the government imposes uniform preferences, despite the heterogeneous individual preferences, at a level which will depend on the merit or demerit nature of the observable good. We derive the optimal nonlinear re-distributive policy and compare our results to the ones that would be obtained under a utilitarian social welfare function that respects the own preferences of individuals.

Rangel, Antonio

TI Adjusting to a New Technology: Experience and Training. **AU** Helpman, Elhanan; Rangel, Antonio.

Rausser, Gordon C.

TI Privatization, Market Liberalization And Learning In

Transition Economies. **AU** Goodhue, Rachael E.; Rausser, Gordon C.; Simon, Leo K.

Ravikumar, B.

TI Growth and Risk-Sharing with Private Information. **AU** Khan, Aubhik; Ravikumar, B.

Ray, Debraj

PD December 1998. **TI** Coalition Power and Public Goods. **AU** Ray, Debraj; Vohra, Rajiv. **AA** Ray: Boston University and Insituto de Analisis Economico. Vohra: Brown University. **SR** Brown University Department of Economics Working Paper: 98/24; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 25. **PR** no charge. **JE** C71, C72, D62, H41. **KW** Coalitions. Public Goods. Efficiency. Mechanism Design. Game Theory.

AB The problem of inefficiency associated with the provision of public goods has traditionally been viewed as stemming from lack of information. The theory of mechanism design attempts to resolve this problem. The authors argue, however, that coalitions of agents might reject the proposed mechanisms in favor of agreements (or mechanisms) among themselves. This paper's primary aim is to analyze the nature of cooperation, and possible inefficiency, that may arise in equilibrium even in the absence of informational frictions. Formally, the authors consider a model of coalitional bargaining in which agents make agreements to form coalitions and to share their surplus, taking into account the equilibrium behavior of the remaining agents in the economy. The authors provide a complete characterization of the equilibrium coalition structure in a simple model with one private good, one public good, and several identical agents. They show that there is a unique equilibrium coalition structure.

Razin, Assaf

PD August 1999. **TI** Excessive FDI Flows Under Asymmetric Information. **AU** Razin, Assaf; Sadka, Efraim; Yuen, Chi-Wa. **AA** Razin and Sadka: Tel-Aviv University. Yuen: University of Hong Kong. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 27/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 25. **PR** no charge. **JE** D82, F21, F23, F32. **KW** Foreign Direct. Investment. Adverse Selection. Capital Mobility.

AB In Razin, Sadka and Yuen (1998, 1999a), the authors explored the policy implications of home-bias in international portfolio investment resulting from asymmetric information problems where domestic savers have an informational advantage. Foreign direct investment (FDI) differs because, FDI investors (FDIors) can monitor operations closely by stationing managers from the multinational firms in the foreign direct establishments. FDIors have an informational advantage over domestic savers as well as over foreign portfolio investors because FDI entails direct control of the acquired domestic firm, which the typical domestic savers with ownership position in the firm do not have. Being "insiders", the FDIors can "overcharge" the domestic savers, the "outsiders", when shares are traded. Anticipating future domestic stock market trade opportunities, foreign investment becomes excessive. However, unlike the home-bias informational problem, which leads to inadequate foreign portfolio capital inflows which may be correctable by Pigouvian taxes, excessive FDI flows under the insider-outsider informational problem call for a non-tax corrective policy. First, because they are governed by unobservable variables (such as the productivity level which triggers default). Second, because there exist self-fulfilling expectations equilibria which cannot be efficiently corrected by taxation. The corrective policy tool that is left available is quantity restrictions on FDI.

Renault, Micheline

TI Checking Accounts and Bank Monitoring. **AU** Mester, Loretta J.; Nakamura, Leonard I.; Renault, Micheline.

Rendl, Franz

TI Semidefinite Programs and Association Schemes. **AU** Goemans, Michel X.; Rendl, Franz.

Renneboog, Luc

TI Corporate Governance Structures, Control and Performance in European Markets: A Tale of Two Systems. **AU** Crama, Yves; Leruth, Luc; Renneboog, Luc; Urbain, Jean-Pierre.

Restuccia, Diego

PD July 1998. **TI** Technology Adoption and Schooling: Amplifier Income Effects on Policies Across Countries. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9810; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 21. **PR** $10.00 Canadian per paper. **JE** I21, J24, J31, O33, O40. **KW** Technology Adoption. Income Effects. Growth. Productivity. Education.

AB Neoclassical growth models require large productivity/distortion differences across countries to produce the observed disparities in the wealth of nations. This paper develops an otherwise very standard neoclassical model with technology adoption and schooling decisions, and shows that in this environment the required productivity/distortion differences are much smaller. The schooling and technology adoption features of the model amplify the effects of productivity/distortion differences on income disparity. In particular, the model generates 3 times more income disparity than a standard model. Moreover, the author finds that it is the interaction between the technology adoption and schooling features of the model, and not each in isolation, that accounts for most of the amplifier effect. The author shows that the model is consistent with the observed patterns of the schooling differences across countries. In the model, average levels of schooling vary across economies since education is more useful in modern technologies.

Rhee, Byung-Kun

TI Does Cultural Origin Affect Saving Behavior? Evidence from Immigrants. **AU** Carroll, Christopher D.; Rhee, Byung-Kun; Rhee, Changyong.

Rhee, Changyong

TI Does Cultural Origin Affect Saving Behavior? Evidence from Immigrants. **AU** Carroll, Christopher D.; Rhee, Byung-Kun; Rhee, Changyong.

Ribon, Sigal

PD August 1999. **TI** Financial Liberalization and Competition in Banking: An Empirical Investigation. **AU** Ribon, Sigal; Yosha, Oved. **AA** Ribon: Bank of Israel. Yosha: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 23/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 45. **PR** no charge. **JE** D41, D42, F36, G21. **KW** Competition. Banking. Deposits and Loans. Financial Liberalization.

AB This paper explores whether Israeli banks lost market power as a consequence of financial liberalization, despite the fact that the banking industry remained highly concentrated. The authors estimate a "monopoly power" conduct parameter, jointly, for the non-indexed local currency loan and deposit markets, building on the method developed in Bresnahan (1982, 1989), Porter (1983), and Lee and Porter (1984). In both markets the hypothesis of perfect competition is rejected, and the market for bank loans is found to be less competitive than the market for bank deposits, which supports the view that bank loans are relationship and information intensive while bank deposits are a more standardized service. To address the effect of financial liberalization on competition in banking, the authors allow the conduct parameters in both markets to vary over time, finding a large and statistically significant increase in the degree of inter-bank competition in both markets during the sample period. Further, the estimated coefficient of the Euro interest rate in the demand schedule for loans is significantly larger in the second half of the sample period, suggesting that international financial liberalization is responsible, at least in part, for the increased competition in the local currency non-indexed bank loan market.

Rider, Mark

TI Income Taxes and Entrepreneurs' Use of Labor. **AU** Carroll, Robert; Holtz-Eakin, Douglas; Rider, Mark; Rosen, Harvey S.

Roberts, Mark J.

TI Productivity and the Decision to Export: Micro Evidence from Taiwan and South Korea. **AU** Aw, Bee Yan; Chung, Sukkyun; Roberts, Mark J.

Robins, James

TI Undersmoothing and Bias Corrected Functional Estimation. **AU** Newey, Whitney K.; Hsieh, Fushing; Robins, James.

Rochet, Jean-Charles

TI Direct Versus Indirect Taxation: The Design of the Tax Structure Revisited. **AU** Cremer, Helmuth; Pestieau, Pierre; Rochet, Jean-Charles.

Rochon, Celine

TI Debt, Liquidity and Dynamics. **AU** Polemarchakis, Heracles M.; Rochon, Celine.

Rodrik, Dani

PD May 1998. **TI** Trade Policy and Economic Performance in Sub-Saharan Africa. **AA** Harvard University and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6562; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 40. **PR** $5.00. **JE** F13, F43, O55. **KW** International Trade. Commercial Policy. Growth. Africa.

AB This study focuses on the role of trade and trade policy in achieving sustained long-term growth in Africa. One major conclusion is that trade policy in Sub-Saharan Africa works similarly to how it does elsewhere. High levels of trade restrictions have been an important obstacle to exports in the past, and their reduction can be expected to result in significantly improved trade performance. There is little ground for pessimism in this respect, or for concern that Africa's different conditions -- poor infrastructure, geography, or dependence on a limited number of primary products -- make it a special case in which exports are not responsive to prices or to traditional instruments of commercial policy. At the same time, the effects of trade policy on economic growth seem to be indirect and much more modest. The fundamentals for long-term growth are human resources, physical infrastructure, macroeconomic stability, and the rule of law.

Rogoff, Kenneth

TI New Directions for Stochastic Open Economy Models. **AU** Obstfeld, Maurice; Rogoff, Kenneth.

Rosen, Harvey S.

TI Vertical Externalities in Tax Setting: Evidence from Gasoline and Cigarettes. **AU** Besley, Timothy J.; Rosen, Harvey S.

TI Income Taxes and Entrepreneurs' Use of Labor. **AU** Carroll, Robert; Holtz-Eakin, Douglas; Rider, Mark; Rosen, Harvey S.

Rosenberg, Joshua

TI Testing the Volatility Term Structure Using Option Hedging Criteria. **AU** Engel, Robert; Rosenberg, Joshua.

PD May 1999. **TI** Empirical Tests of Interest Rate Model Pricing Kernels. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/34; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 19. **PR** $5.00 each; $100.00 yearly subscription. **JE** C51, C52, E43, G11, G13. **KW** Pricing Kernels. Interest Rates. Term Structure. Options. Utility Functions.

AB This paper estimates and tests consumption-based pricing kernels used in common equilibrium interest rate term structure models. In contrast to previous papers that use return orthogonality conditions, estimation is accomplished using moment conditions from a consumption based option pricing equation and market prices of interest rate options. This methodology is more sensitive to preference misspecification over states associated with large changes in consumption. In addition, this methodology provides a large set of natural moment conditions to use in estimation and testing. Eurodollar futures option prices and an estimated joint model of quarterly aggregate consumption and three month Eurodollar rates are used to estimate and test pricing kernels based on logarithmic, power, and exponential utility functions. Using the market prices of interest rate options, evidence is found which is consistent with the equity premium puzzle. The results suggest that typical term structure models are misspecified in terms of assumed preferences.

PD June 1999. **TI** Option-based Tests of Interest Rate Diffusion Functions. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/38; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 11. **PR** $5.00 each; $100.00 yearly subscription. **JE** C52, E43, G12. **KW** Interest Rates. Model Testing. Volatility.

AB The consistent finding in papers that estimate the interest rate diffusion function is that interest rate volatility is an increasing function of the spot rate. This paper introduces and implements regression tests of monotonic diffusion functions using an implied volatility proxy for objective volatility. Using the case of three-month LIBOR rates, this paper documents that the relationship between interest rate levels and interest rate volatility is insignificant over the period 1985 through 1998. While rate volatility is clearly stochastic, it is not characterized by an increasing function (either linear or nonlinear) of rates.

PD July 1999. **TI** Implied Volatility Functions: A Reprise. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/36; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 13. **PR** $5.00 each; $100.00 yearly subscription. **JE** G13. **KW** Options. Implied Volatility. Hedging. Futures.

AB Dumas, Fleming, Whaley (DFW, 1998) find that option models based on deterministic volatility functions (DVF) perform poorly because the estimated volatility function is unstable over time. DFW provide evidence that the DVF changes significantly on a weekly basis. This paper proposes a new class of dynamic implied volatility function models (DIVF). This class of models separates a time-invariant implied volatility function from the stochastic state variables that drive changes in the individual implied volatilities. The dynamics of the state variables are modeled explicitly. This framework facilitates consistent pricing and hedging with time-variation in the implied volatility function (IVF). In tests conducted using the full history of S&P 500 futures option prices, the DIVF model is found to substantially improve pricing performance compared to static implied volatility function models and benchmark pricing models such as Black and Scholes (1973).

PD July 1999. **TI** Asset Pricing Puzzles: Evidence from Options Markets. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/37; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 17. **PR** $5.00 each; $100.00 yearly subscription. **JE** G12, G13. **KW** Asset Pricing. Options. Risk-Neutral Moments. Pricing Kernels. Risk Aversion.

AB This paper examines the relationship between consumption-based and option-based risk-neutral moments, providing a technique to explore consumption-based pricing kernel specifications using data from the options market. Estimators for average risk-neutral moments of each type are proposed and implemented. Option-based average risk-neutral moments are estimated for S&P 500 returns using S&P 500 futures options data; consumption-based moments are estimated using aggregate consumption data, the time- series of S&P 500 returns, and pricing kernels characterized by constant relative risk aversion, consumption durability, and habit persistence. Moment comparisons indicate that there is a "risk-neutral standard deviation puzzle." All of the pricing kernel specifications, even at very high levels of relative risk aversion, significantly underestimate option-based risk-neutral standard deviation or interquartile range.

PD August 1999. **TI** Empirical Pricing Kernels. **AU** Rosenberg, Joshua; Engel, Robert. **AA** Rosenberg: New York University. Engel: University of California, San Diego. **SR** New York University, Salomon Center Working Paper: S/99/33; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 28. **PR** $5.00 each; $100.00 yearly subscription. **JE** C14, C51, E32, G13. **KW** Risk Aversion. Pricing Kernels. Hedging. Options. Business Cycles.

AB This paper investigates the empirical characteristics of investor risk aversion over equity return states by estimating a time-varying semi-parametric pricing kernel. The two key features of this estimator are: (1) the functional form of the pricing kernel is estimated semi- parametrically, instead of being prespecified and (2) the pricing kernel is reestimated on a monthly basis, allowing measurement of time- variation in risk-aversion over equity return states. The paper finds that: (1) a constant relative risk aversion (power utility) pricing kernel over S&P 500 return states is rejected in favor of an empirical pricing kernel which incorporates stochastic risk aversion and higher value for payoffs in large negative return states; (2) empirical risk aversion over equity return states are found to be closely linked to business conditions. An option hedging methodology is developed as a test of the predictive information in the empirical pricing kernel and its associated state probability model.

PD August 1999. **TI** Semiparametric Pricing of Multivariate Contingent Claims. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/35; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 15. **PR** $5.00 each; $100.00 yearly subscription. **JE** C14, C51, G12, G13. **KW** Contingent Claims. Density Functions. Options. Semiparametric Methods. Risk Neutrality.

AB This paper develops and implements a methodology for pricing multivariate contingent claims (MVCC's) based on semiparametric estimation of the multivariate risk-neutral density function. This methodology generates MVCC prices, which are consistent with current market prices of univariate contingent claims. This method allows for completely general marginal risk-neutral densities and is compatible with all univariate risk neutral density estimation techniques. The univariate risk-neutral densities are related by their risk-neutral correlation, which is estimated using time-series data on asset returns and an empirical pricing kernel (Rosenberg and Engle, 1999). This permits the multivariate risk-neutral density to be identified without requiring observation of multivariate contingent claims prices. The semi-parametric MVCC pricing technique is used for valuation of one- month options on the better of two equity index returns. Five marginal risk-neutral densities are estimated semiparametrically using a cross-section of contemporaneously measured equity index option prices in each market.

Rosengren, Eric S.

TI The International Transmission of Financial Shocks: The Case of Japan. **AU** Peek, Joe; Rosengren, Eric S.

TI Derivatives Activity at Troubled Banks. **AU** Peek, Joe; Rosengren, Eric S.

TI Will Legislated Early Intervention Prevent the Next Banking Crisis? **AU** Peek, Joe; Rosengren, Eric S.

TI Does the Federal Reserve Have an Informational Advantage? You Can Bank on It. **AU** Peek, Joe; Rosengren, Eric S.; Tootell, Geoffrey M. B.

TI The Poor Performance of Foreign Bank Subsidiaries: Were the Problems Acquired or Created? **AU** Peek, Joe; Rosengren, Eric S.; Kasirye, Faith.

TI Japanese Banking Problems: Implications for Southeast Asia. **AU** Peek, Joe; Rosengren, Eric S.

PD December 1998. **TI** Will Greater Disclosure and Transparency Prevent the Next Banking Crisis? **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/08; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 10. **PR** No charge. **JE** E52, E63, G21, G28. **KW** Disclosure. Transparency. Banking Crises. Regulation.
AB Greater transparency and disclosure of bank activities will not prevent future banking crises unless appropriate monetary, fiscal, and regulatory policies are also adopted. Nonetheless, greater disclosure of banking problems can reduce the costs of banking crises, even if transparency is not a panacea for preventing banking crises.

TI Determinants of the Japan Premium: Actions Speak Louder than Words. **AU** Peek, Joe; Rosengren, Eric S.

TI The Impact of Greater Bank Disclosure Amidst a Banking Crisis. **AU** Jordan, John S.; Peek, Joe; Rosengren, Eric S.

Rossi, Marco

PD May 1999. **TI** Financial Fragility and Economic Performance in Developing Economies: Do Capital Controls, Prudential Regulation and Supervision Matter? **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/66; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 27. **PR** not available. **JE** E44, E63, F21, F32, O16. **KW** Financial Crises. Capital Account. Prudential Regulation. Supervision. Deposit Insurance.
AB Little empirical investigation exists of the links among capital account liberalization, prudential regulation and supervision, financial crises, and economic development, mainly because of the lack of comparable measures to describe regulatory practices for different countries. This paper examines empirically, albeit in a preliminary manner, these links using new measures of capital controls, prudential regulation, supervision, and depositors' safety for a sample of 15 developing economies over the period 1990-97. Results confirm the importance of the degree of capital account convertibility and the regulatory and supervisory framework in affecting financial fragility and economic performance.

Rottier, Stephane

TI Agenda Control in Coalition Formation. **AU** Bloch, Francis; Rottier, Stephane.

Roubini, Nouriel

PD March 1998. **TI** Current Account Sustainability in Transition Economies. **AU** Roubini, Nouriel; Wachtel, Paul. **AA** Roubini: New York University and National Bureau of Economic Research. Wachtel: New York University. **SR** National Bureau of Economic Research Working Paper: 6468; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 56. **PR** $5.00. **JE** F32, F34, F41, P27. **KW** Current Account. Deficit Sustainability. Transition Economies. Exchange-Rate Regime.
AB This paper presents an analysis of the sustainability of current account deficits in transition economies in Central and Eastern Europe. These countries have experienced large current account imbalances in the transition to a market economy. We consider a wide range of macroeconomic factors that may indicate whether such imbalances are sustainable. We find that capital inflows and the choice of regimes of fixed exchange rates have led to a real exchange rate appreciation in many countries; this in turn has led to a significant loss of competitiveness and a worsening of the current account. In several countries there are a number of other indicators that point to a fragility of the external balance: weak banking and financial systems, large fiscal imbalances, low foreign reserves, increasing foreign debt and foreign debt-burden ratios. However, short-term portfolio investments (so-called "hot money" inflows) are still relatively small in the transition economies examined, thus limiting the possibility of sudden speculative capital outflows.

Rovesti, Cinzia

PD March 1999. **TI** Optimal Dynamic Antitrust Policies. **AA** Autorita Garante della Concorrenza, Roma, Italy. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9914; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 36. **PR** $100 per year. **JE** D82, K21, L41, L51. **KW** Dynamic Policy. Antitrust Policy. Antitrust Guidelines. Ratchet Effect.
AB The paper studies the optimal antitrust policies carried out by a public agency faced with firms' horizontal price-fixing behavior, in a two period model with asymmetric information. The authors analyze the effect on social welfare in the case where the Antitrust Authority decides to bind itself to follow the same policy, an investigation procedure, over the two periods. This policy is interpreted as the adoption of antitrust guidelines. One can show that the introduction of antitrust guidelines does improve social welfare. Inter-temporal dynamic effects on industry strategies which lead to the ratchet effect do not offset the benefits that accrue to the agency from its commitment to the same policy across the periods.

Rubinfeld, Daniel L.

TI Subsidiarity and the European Union. **AU** Inman, Robert P.; Rubinfeld, Daniel L.

Rudebusch, Glenn D.

PD April 1998. **TI** Policy Rules for Inflation Targeting.

AU Rudebusch, Glenn D.; Svensson, Lars E. O. **AA** Rudebusch: Federal Reserve Bank of San Francisco. Svensson: Stockholm University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6512; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** C53, E52, E58. **KW** Instrument Rules. Targeting Rules. Inflation Targeting. Inflation Forecasting.

AB Policy rules that are consistent with inflation targeting are examined in a small macroeconomic model of the U.S. economy. We compare the properties and outcomes of explicit "instrument rules" as well as "targeting rules." The latter, which imply implicit instrument rules, may be closer to actual operating procedures of inflation-targeting central banks. We find that inflation forecasts are central for good policy rules under inflation targeting. Some simple instrument and targeting rules do remarkably well relative to the optimal rule; others, including some that are often used as representing inflation targeting, do less well.

Ruhm, Christopher J.

PD May 1998. **TI** Parental Leave and Child Health. **AA** University of North Carolina, Greensboro and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6554; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 28. **PR** $5.00. **JE** I12, I18, J13, J38. **KW** Parental Leave. Child Health. Child Mortality. Birth Weight.

AB This study investigates whether rights to paid parental leave improve pediatric health, as measured by birth weights and infant or child mortality. Aggregate data are used for nine European countries over the 1969 through 1994 period. Year and country fixed-effects are held constant and most specifications include additional covariates or control for country-specific time trends. Much of the analysis incorporates a natural experiment comparing changes in pediatric outcomes to those of senior citizens, whose health is not expected to be affected by parental leave. More generous leave rights are found to reduce deaths of infants and young children. The magnitudes of the estimated effects are substantial, especially for those outcomes where a causal effect of parental leave is most plausible. In particular, there is a much stronger negative relationship between leave durations and post-neonatal mortality or fatalities between the first and fifth birthday than for perinatal mortality, neonatal deaths, or the incidence of low birth weight. The evidence further suggests that parental leave may be a cost-effective method of bettering child health.

Sadka, Efraim

TI Excessive FDI Flows Under Asymmetric Information. **AU** Razin, Assaf; Sadka, Efraim; Yuen, Chi-Wa.

Safra, Zvi

PD November 1998. **TI** Dual Betweenness. **AU** Safra, Zvi; Segal, Uzi. **AA** Safra: Tel Aviv University. Segal: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9814; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 10. **PR** $10.00 Canadian per paper. **JE** D81. **KW** Dual Theory. Ranking. Decision Making.

AB A key feature of the rank dependent model for decision making under risk is that the weighting of an outcome depends on its relative rank. This theory received numerous axiomatizations, however, all these sets of axioms need to make an explicit reference to the ranking of the outcomes. This situation is unsatisfactory, as it seems to be desirable to get the ranking property of this model as a consequence of the model, rather than as an assumption. Yaari offered a special version of this model (called dual theory), where the utility function is linear. This paper offers a set of axioms implying a generalization of Yaari's dual theory, without making any reference to the order of the outcomes. The main axiom is called dual betweenness, which, unlike the usual case, is made on random variables rather than distribution functions.

Sahay, Ratna

TI The Evolution of Output in Transition Economies: Explaining the Differences. **AU** Berg, Andrew; Borensztein, Eduardo; Sahay, Ratna; Zettelmeyer, Jeromin.

TI The Evolution of Output in Transition Economies: Explaining the Differences. **AU** Berg, Andrew; Borensztein, Eduardo; Sahay, Ratna; Zettelmeyer, Jeromin.

Saks, Raven E.

TI Downward Nominal Wage Rigidity: Evidence from the Employment Cost Index. **AU** Lebow, David E.; Saks, Raven E.; Wilson, Beth Anne.

Salto, Matteo

PD November 1998. **TI** Indeterminacy of Equilibrium Allocations in Monetary Open Economies. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9862; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 22. **PR** $100 per year. **JE** D52, D81, E51, F41. **KW** Incomplete Markets. Exchange Rates. Monetary Economy. Shocks.

AB In an open economy, outside money in positive supply does not eliminate the real indeterminacy which arises under uncertainty and incomplete asset markets. If money supply is subject to shocks or is not perfectly credible in all countries, the level of a fixed exchange rate matters. Analogous results obtain in cash-in-advance models.

Samwick, Andrew A.

PD April 1998. **TI** New Evidence on Pensions, Social Security, and the Timing of Retirement. **AA** Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6534; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 31. **PR** $5.00. **JE** H55, J14, J26. **KW** Retirement Timing. Wealth. Labor Supply. Pension Formulas.

AB Using a unique dataset that links the economic and demographic information of households with the details of their pension formulas, I estimate the combined effect of Social Security and pension benefits on the probability of retirement in a cross-section of the population near retirement age. The accrual rate of retirement wealth is shown to be a significant

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

determinant of the probability of retirement. Simulations of extensions in pension coverage comparable to those that occurred in the early postwar period can account for one fourth of the contemporaneous decline in labor force participation rates.

TI Two Percent Personal Retirement Accounts: Their Potential Effects on Social Security Tax Rates and National Saving. **AU** Feldstein, Martin; Samwick, Andrew A.

Sanchirico, Chris

TI Collusion and Price Rigidity. **AU** Athey, Susan; Bagwell, Kyle; Sanchirico, Chris.

Sauer, Robert M.

TI Immigration, Search and Loss of Skill. **AU** Weiss, Yoram; Sauer, Robert M.; Gotibovski, Menachem.

Saunders, Anthony

PD August 1999. **TI** Low Inflation: The Behavior of Financial Markets and Institutions. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/31; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 29. **PR** $5.00 each; $100.00 yearly subscription. **JE** E31, E44, G21. **KW** Inflation. Financial Markets. Banking. Reintermediation.

AB This paper provides a broad overview of the potential impact of low inflation (deflation) on U.S. financial markets and institutions. It is argued that the contemporary experience of Japan and the historical experience of the U.S. in the 1920s and 30s offer only limited insights into the potential impacts of low inflation (deflation) on today's U.S. financial system. A number of potential implications are discussed including a decline in secondary market trading and a trend towards reintermediation. In addition, low inflation/deflation is likely to have a material effect on bank duration and convexity exposures.

Savastano, Miguel A.

TI The Morning After: The Mexican Peso in the Aftermath of the 1994 Currency Crisis. **AU** Edwards, Sebastian; Savastano, Miguel A.

TI The IMFApproach to Economic Stabilization. **AU** Mussa, Michael; Savastano, Miguel A.

Scacciavillani, Fabio

PD July 1999. **TI** Measures of Potential Output: An Application to Israel. **AU** Scacciavillani, Fabio; Swagel, Phillip. **AA** Scacciavillani: European Central Bank. Swagel: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/96; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 26. **PR** not available. **JE** E32, O40. **KW** Potential Output. Output Gap. Wavelets Analysis. Growth. Israel.

AB This paper estimates measures of potential output for Israel, with the aim of providing evidence on whether the recent growth slowdown is principally a cyclical slowdown or a structural shift toward a slower growth path after the dramatic developments associated with the years of heavy immigration. Israel poses a challenge because traditional methods of measuring potential output assume relatively stable conditions over an extended period of time. We employ five methodologies to derive estimates and find that four of the measures imply the slowdown stems largely from reduced growth of potential output rather than a cyclical slowdown.

Scharfstein, David

TI Managed Care and Provider Volume. **AU** Feldman, Sarah; Scharfstein, David.

Scheve, Kenneth F.

PD April 1998. **TI** What Determines Individual Trade Policy Preferences? **AU** Scheve, Kenneth F.; Slaughter, Matthew J. **AA** Scheve: Harvard University. Slaughter: Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6531; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** F13. **KW** Trade Policy. Preferences. Factor Type. Home Ownership.

AB This paper provides new evidence on the determinants of individual trade policy preferences using an individual-level data set identifying both stated trade policy preferences and potential trade exposure through several channels for the United States in 1992. First, the paper finds that factor type dominates industry of employment in explaining support for trade barriers. This is consistent with a Heckscher-Ohlin model of the U.S. where the country is well endowed with skilled labor relative to the rest of the world. The result suggests that there is high intersectoral labor mobility in the United States over the time horizons relevant to individuals when evaluating trade policy. Second, the paper finds that home ownership also matters for trade policy preferences. Independent of factor type, home ownership in countries with a manufacturing mix concentrated in comparative disadvantage industries is strongly correlated with support for trade barriers. This suggests that in addition to current factor incomes driving preferences as in standard trade models, preferences also depend on asset values. To the extent that trade policy is like other government policies which affect citizens by changing relative product prices, these findings have implications for how individuals form preferences over a wide range of economic policies.

Schiff, Jerald

TI Military Spending, the Peace Dividend, and Fiscal Adjustment. **AU** Davoodi, Hamid; Clements, Benedict; Schiff, Jerald; Debaere, Peter.

Schiller, Christian

TI Privatization, Social Impact and Social Safety Nets. **AU** Gupta, Sanjeev; Schiller, Christian; Ma, Henry.

Schmeidler, David

TI Inductive Inference: An Axiomatic Approach. **AU** Gilboa, Itzhak; Schmeidler, David.

TI Cognitive Foundations of Probability. **AU** Gilboa, Itzhak; Schmeidler, David.

TI A Note on Utility in Case-Based Decision Theory. **AU** Gilboa, Itzhak; Schmeidler, David.

Schmukler, Sergio L.

TI Country Funds and Asymmetric Information.

AU Frankel, Jeffrey A.; Schmukler, Sergio L.

Schoeni, Robert F.

TI Social Security, Economic Growth, and the Rise in Independence of Elderly Widows in the 20th Century. **AU** McGarry, Kathleen; Schoeni, Robert F.

Schor, Armand-Denis

TI The International Role of the Euro. **AU** Benassy-Quere, Agnes; Mojon, Benoit; Schor, Armand-Denis.

Schultz, Christian

PD December 1998. **TI** Monetary Policy, Delegation and Polarization. **AA** University of Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/17; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 25. **PR** Free. **JE** D72, E32, E58, E63. **KW** Business Cycles. Polarization. Monetary Policy. Political Processes. Central Banks.

AB This paper studies the relation between political polarization and delegation of stabilization policy. There is asymmetric information about how the economy works: unlike voters, two political parties know the variance of an employment shock. Prior to an election each party proposes a central banker to be chosen if the party wins. If political polarization is small, voters will learn the true variance and the central banker and the stabilization policy are the ones most preferred by the median voter. If the political polarization is high, stabilization policy does not reflect the variance but only the preferences of the winning party.

Schulz, Andreas S.

TI Single Machine Scheduling With Release Dates. **AU** Goemans, Michel X.; Queyranne, Maurice; Schulz, Andreas S.; Skutella, Martin; Wang, Yaoguang.

TI Single Machine Scheduling With Release Dates. **AU** Goemans, Michel X.; Queyranne, Maurice; Schulz, Andreas S.; Skutella, Martin; Wang, Yaoguang.

Schweitzer, Mark

TI The Effects of Minimum Wages on the Distribution of Family Incomes: A Non-Parametric Analysis. **AU** Neumark, David; Schweitzer, Mark; Wascher, William.

Segal, Uzi

TI Dual Betweenness. **AU** Safra, Zvi; Segal, Uzi.

Seitz, Shannon N.

TI The Role of Domestic Abuse in Labor and Marriage Markets: Observing the Unobservables. **AU** Bowlus, Audra J.; Seitz, Shannon N.

Sekine, Toshitaka

PD August 1999. **TI** Firm Investment and Balance-Sheet Problems in Japan. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/111; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 29. **PR** not available. **JE** C23, E22, E51, G21, G31. **KW** Investment. Credit Channel. Panel Data. Debt-Asset Ratios. Japan.

AB This paper investigates whether balance-sheet conditions of firms and their main banks matter for firm investment behavior using dynamic corporate panel data in Japan for the period 1985-95. It finds that smaller non-bond issuing firms were facing liquidity constraints; these firms' balance-sheet conditions (the debt asset ratios) affected their investment from the midst of the bubble era by influencing main banks' lending to them; and the deterioration of their main banks' balance-sheet conditions constrained these firms' investment from about 1993. These findings highlight the potential macroeconomic impact and importance of the credit channel of monetary policy, and support the case of a credit crunch facing small Japanese firms during this period.

Sen, Arunava

TI Dictatorial Domains. **AU** Aswal, Navin; Chatterji, Shurojit; Sen, Arunava.

Senhadji, Abdelhak

PD June 1999. **TI** Sources of Economic Growth: An Extensive Growth Accounting Exercise. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/77; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 22. **PR** not available. **JE** E25, O47. **KW** Growth Accounting. Total Factor Productivity. Production Function.

AB A growth accounting exercise is conducted for 88 countries for 1960- 94 to examine the source of cross-country differences in total factor productivity (TFP) levels. Two differences distinguish this analysis from that of the related literature. First, the critical technology parameter -- the share of physical capital in real output -- is econometrically estimated and the usual assumption of identical technology across regions is relaxed. Second, while the few studies on the determinants of cross-country differences in TFP have focused on growth rates of real output this analysis is on levels. Recent theoretical as well as empirical arguments point to the level of TFP as the more relevant variable to explain.

Seppi, Duane J.

TI Common Factors in Prices, Order Flows and Liquidity. **AU** Hasbrouck, Joel; Seppi, Duane J.

Serrano, Roberto

PD April 1999. **TI** On the Impossibility of Implementation Under Incomplete Information. **AU** Serrano, Roberto; Vohra, Rajiv. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/10; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 20. **PR** no charge. **JE** C72, D78, D82. **KW** Bayesian Implementation. Virtual Implementation. Bayesian Monotonicity. Incomplete Information. Noncooperative Games.

AB We demonstrate that the condition of Bayesian monotonicity, necessary for implementation in Bayesian equilibrium, is extremely restrictive. Over certain natural classes of economies, only constant social choice functions satisfy it. All our negative results also extend to virtual Bayesian implementation. This is in sharp contrast with the complete information case, where the virtual approach yields extremely permissive implementation results.

PD May 1999. TI Bargaining and Bargaining Sets. AU Serrano, Roberto; Vohra, Rajiv. AA Brown University. SR Brown University Department of Economics Working Paper: 99/18; Department of Economics, Box B, Brown University, Providence, RI 02912. PG 26. PR no charge. JE C71, C72, C78, D51. KW Bargaining Sets. Implementation. Nash Equilibrium. Subgame Perfect. Exchange Economies.

AB The authors first demonstrate that, in exchange economies, various versions of the bargaining set cannot be implemented in Nash equilibrium. Next they propose two mechanisms in extensive form. The former exactly implements the Aumann-Davis-Maschler bargaining set in subgame perfect equilibrium. The latter approximately implements the Mas-Colell bargaining set in subgame perfect equilibrium as discounting is removed. The mechanisms correspond closely to the description of the bargaining sets, and respect feasibility in and out of equilibrium.

Shachar, Ron

PD July 1999. TI Party Loyalty as Habit Formation. AA Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 20/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. PG 42. PR no charge. JE C13, C51, D72. KW Voting Behavior. Structural Estimation. Discrete Choice. Observed Persistence.

AB In most democracies, at least two out of any three individuals vote for the same party in sequential elections. This paper shows that the issues, candidates' attributes and individuals' demographics do not account for all of the persistence over time in voting decisions. The author suggests that the excess persistence in voting decisions is due to habit formation, which means that utility is a function of previous voting decisions. The theory is tested using panel data on the presidential elections in the U.S. in 1972 and 1976. Diagnostic tests support the habit hypothesis and its implications and reject an alternative hypothesis presented by previous voting theories. Furthermore, the structural model is used to estimate the effect of habit, while allowing unobserved differences among respondents. The structural habit parameter implies that the effect of previous votes on current decision is quite strong. For example, an individual whose voting probability for the democratic party is 50 percent if she voted for its candidate in the previous elections, would have a voting probability of only 28.5 percent if her previous vote was for the Republican candidate instead. These results do not change when the model is extended to include the participation decision.

Shackelford, Douglas A.

TI Managing Annual Accounting Reports to Avoid State Taxes: An Analysis of Property-Casualty Insurers. AU Petroni, Kathy R.; Shackelford, Douglas A.

Shapiro, Alexander

PD September 1999. TI The Investor Recognition Hypothesis in a Dynamic General Equilibrium: Theory and Evidence. AA New York University. SR New York University, Salomon Center Working Paper: S/99/40; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. PG 45. PR $5.00 each; $100.00 yearly subscription. JE D51, G11, G12, G14. KW Investor Recognition. Portfolio Choice. Incomplete Information. CCAPM. Equity Returns.

AB This paper analyzes equilibrium in a dynamic pure-exchange economy under a generalization of Merton's (1987) investor recognition hypothesis (IRH). Because of information costs, a class of investors is assumed to possess incomplete information, which suffices to implement only a particular trading strategy. The IRH is mapped into corresponding portfolio restrictions that bind a subset of agents. The model is formulated in continuous time, and detailed characterization of equilibrium quantities is provided. The model implies that, all else equal, a risk premium on a less visible stock need not be higher than that on a more visible stock with a lower volatility -- contrary to results derived in a static mean-variance setting. An empirical analysis suggests that a consumption-based capital asset pricing model (CCAPM) augmented by the IRH is a more realistic model than the traditional CCAPM for explaining the cross-sectional variation in unconditional expected equity returns.

Sheehan, Dennis P.

TI Were the Good Old Days that Good? Changes in Managerial Stock Ownership Since the Great Depression. AU Holderness, Clifford G.; Kroszner, Randall S.; Sheehan, Dennis P.

Sheiner, Louise

PD January 1999. TI The Geography of Medicare. AU Sheiner, Louise; Cutler, David M. AA Sheiner: Board of Governors of the Federal Reserve System. Cutler: Harvard University and National Bureau of Economic Research. SR Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/18; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board, Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. PG 13. PR no charge. JE H51, H60, I11, I18. KW Medicare. Geographic Variation. Elderly. Health Care.

AB There is a great deal of geographic variation in Medicare spending. For example, while the average Medicare cost per beneficiary was around $5200 in 1996, Medicare spending, adjusted for differences in regional prices and demographic composition, was about $8000 per person in Miami, but $3500 in Minneapolis. This paper explores the source of this variation. The authors find that a substantial amount can be explained by differences across areas in the elderly population's health. This finding suggests that some of the geographic variation in Medicare spending is efficient. But even accounting for differences in the health of the population, significant variation remains. The authors have been able to explain some of the remaining variation. The strongest factors are supply variables: for-profit hospitals and specialist physicians both increase Medicare spending. If these factors are exogenous, public policy may want to consider the supply of medical services more than it currently does.

PD January 1999. TI Health Care Costs, Wages, and Aging. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/19; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board, Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. PG 40. PR no charge.

JE I11, J14, J31, J32. **KW** Health Insurance. Employee Benefits. Incidence. Wages.

AB While economists generally agree that workers pay for their health insurance costs through reduced wages, there has been little thought devoted to the level at which these costs are passed on. This paper analyzes one dimension of the question of how firms pass on health costs. Using cross-city variation in health costs, the author tests whether older workers pay for their higher health costs in the form of lower wages. She finds that in cities where health insurance costs are high, the age/wage profile is flatter, indicating that older workers do pay for their higher health costs in the form of reduced wages. This finding is robust to the inclusion of several other city-specific variables that might also affect age/wage profiles and that could be correlated with health insurance costs. The author also finds that workers who choose family health insurance coverage pay for the added employer costs through reduced wages.

PD January 1999. **TI** Demographic and Medical Care Spending: Standard and Non-Standard Effects. **AU** Sheiner, Louise; Cutler, David M. **AA** Sheiner: Board of Governors of the Federal Reserve System. Cutler: Harvard University and National Bureau of Economic Research. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/20; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 13. **PR** no charge. **JE** H51, H61, I18, J14, O33. **KW** Demographics. Medicare. Elderly. Technological Change. Health Care.

AB This paper examines the effects of likely demographic changes on medical spending for the elderly. Standard forecasts highlight the potential for greater life expectancy to increase costs. Two factors work in the other direction, however. First, increases in life expectancy mean that a smaller share of the elderly will be in the last year of life, when medical costs generally are very high. Furthermore, more of the elderly will be dying at older ages, and end-of-life costs typically decline with age at death. Second, disability rates among the surviving population have been declining in recent years by 0.5 to 1.5 percent annually. Reductions in disability, if sustained, will also reduce medical spending. Thus, changes in disability and mortality should, on net, reduce average medical spending on the elderly. However, these effects are not as large as the projected increase in medical spending stemming from increases in overall medical costs.

TI Recent Trends in Compensation Practices. **AU** Lebow, David E.; Sheiner, Louise; Slifman, Larry; Starr-McCluer, Martha.

Shiller, Robert J.

PD May 1998. **TI** Moral Hazard in Home Equity Conversion. **AU** Shiller, Robert J.; Weiss, Allan N. **AA** Shiller: Yale University and National Bureau of Economic Research. Weiss: Case Shiller Weiss, Inc. **SR** National Bureau of Economic Research Working Paper: 6552; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** D81, D82, G21, R31. **KW** Home Equity. Conversion. Moral Hazard. Housing Maintenance.

AB Home equity conversion as presently constituted or proposed usually does not deal well with the potential problem of moral hazard. Once home-owners know that the risk of poor market performance of their homes is borne by investors, they have an incentive to neglect to take steps to maintain the home's values. They may thus create serious future losses for the investors. A calibrated model for assessing this moral hazard risk is presented that is suitable for a number of home equity conversion forms: 1) reverse mortgages, 2) home equity insurance, 3) shared appreciation mortgages, 4) housing partnerships, 5) shared equity mortgages and 6) sale of remainder interest. Modifications of these forms involving real estate price indices are proposed that might deal better with the problem of moral hazard.

Shleifer, Andrei

TI Agency Problems and Divided Policies Around the World. **AU** La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; Vishny, Robert W.

TI Agency Problems and Divided Policies Around the World. **AU** La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei; Vishny, Robert W.

Sicular, Terry

PD January 1998. **TI** Capital Flight and Foreign Investment: Two Tales From China and Russia. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9803; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 14. **PR** $10.00 Canadian per paper. **JE** F14, F21, F32, F41, L10. **KW** Capital Flight. Foreign Investment. Capital Flows. China. Russia.

AB The magnitude of capital flight from China seems noticeably higher than that for Russia. Yet, the issue of capital flight has received considerably more attention in Russia. One explanation may be that where foreign capital inflows are large and growing, as in China, capital outflows cause less concern. Net inflows of foreign capital to Russia, in contrast, have remained small with only weak signs of sustained growth. Other explanations could be tied to social and political factors. Comparison of Russia and China yields several lessons. First, it provides perspective on the magnitude of the problem of capital flight. Second, comparison of China and Russia suggests that one reason for China's attractiveness to investors is the presence of an intermediate sector between the state-owned and private sectors. Third, China's experience reveals that improving the overall investment climate may be a necessary condition for stemming capital flight, but it is not sufficient.

TI Household Structure and Labor Demand in Agriculture: Testing for Separability in Rural China. **AU** Bowlus, Audra J.; Sicular, Terry.

Sill, Keith

PD June 1999. **TI** Exchange Rates, Monetary Policy Regimes, and Beliefs. **AU** Sill, Keith; Wrase, Jeffrey. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/06; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 17. **PR** no charge except overseas airmail, $3.00;

checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** D83, E42, E52, F31, F41. **KW** Monetary Policy. Regime Shifts. Bayesian Learning. Exchange Rates. Markov Switching.

AB We investigate an international monetary business-cycle model in which agents face monetary policy processes that incorporate regime shifts. In any given period agents cannot directly observe the policy regime, but instead form beliefs that are updated via Bayesian learning. As a result, expectation adjustment displays inertia that adds persistence to the effects of monetary shocks. Monetary policy processes for the U.S. and an aggregate of OECD countries are estimated using Hamilton's Markov-switching model. We then solve and calibrate a version of the model and examine its quantitative properties.

PD September 1999. **TI** Exchange Rates and Monetary Policy Regimes in Canada and the U.S. **AU** Sill, Keith; Wrase, Jeffrey. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/13; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 42. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** D83, E32, E42, E52, F31. **KW** Exchange Rates. Monetary Policy. Regime Switching. Bayesian Learning.

AB This paper examines monetary regime switching in Canada and the United States and the implications of regime switching for exchange rates and key nominal and real macroeconomic aggregates for the two countries. Evidence of Markov regime switching in the process governing monetary base growth and in the bilateral exchange rate between the two countries is presented. Given this evidence, a two-country general equilibrium monetary model is constructed to account for observed properties of the U.S.-Canadian dollar exchange rate and for measured effects of monetary policy on key variables. Agents in the model face a monetary policy process with regime switching and form beliefs about regimes and money growth using observations and Bayesian learning. With the driving process for money growth rates parameterized using estimates from the U.S. and Canadian data, quantitative implications of the model for behaviors of exchange rates and other key variables are examined.

PD October 1999. **TI** Solving and Simulating a Simple Open-Economy Model with Markov- Switching Driving Processes and Rational Learning. **AU** Sill, Keith; Wrase, Jeffrey. **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/14; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 22. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C51, E42, E52, F31, F41. **KW** Monetary Policy. Regime Shifts. Bayesian Learning. Exchange Rates. Markov Switching.

AB This paper provides detail on technical aspects of the methods used to solve and simulate the models in the authors' Working Papers, "Exchange Rates, Monetary Policy Regimes, and Beliefs" and "Exchange Rates and Monetary Policy Regimes in the U.S. and Canada." In those papers the authors solve and simulate a two-country, limited participation monetary model of the exchange rate. The models in the two Working Papers are distinguished by the time series processes that describe the evolution of the exogenous state variables: money growth and technology shocks. Section 2 of this paper describes a theoretical open-economy model that features limited participation by households and firms in asset-trading markets. Section 3 gives details on how the model is solved. Section 4 describes the simulation methods used to generate second moments and impulse response functions. The appendix provides a listing of computer programs that solve and simulate versions of the basic model.

Simon, Leo K.

TI Privatization, Market Liberalization And Learning In Transition Economies. **AU** Goodhue, Rachael E.; Rausser, Gordon C.; Simon, Leo K.

Sims, William A.

TI Duality Theory and the Consistent Estimation of Technological Parameters: Why Cost Function Estimation can be Wrong. **AU** McIntosh, James; Sims, William A.

Skinner, Jonathan

PD April 1998. **TI** How Much is Enough? Efficiency and Medicare Spending in the Last Six Months of Life. **AU** Skinner, Jonathan; Wennberg, John E. **AA** Skinner: Dartmouth College and National Bureau of Economic Research. Wennberg: Dartmouth Medical School. **SR** National Bureau of Economic Research Working Paper: 6513; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 22. **PR** $5.00. **JE** I11, I12. **KW** Medicare Spending. Health-Care Efficiency. Regional Differences. Treatment Preferences.

AB In Miami, average inpatient Medicare spending on people in their last six months of life was about double Medicare spending in Minneapolis; average ICU days were nearly four times higher. What are the implications of such differences for the efficiency of health care? In this paper, we used Medicare claims data to document the extent of these variations across 306 hospital referral regions in the U.S. We did not find strong evidence that the spending differences were due to underlying variation in health levels across regions. Nor did we find evidence of any benefits from higher spending levels; regional survival rates following acute conditions like AMI (heart attacks), stroke, and gastrointestinal bleeding were not correlated with more intensive health care spending. Finally, a number of recent studies suggest that people prefer less, rather than more intensive treatment. In sum, our results suggest that (i) regions providing more intensive care are not gaining net health benefits over regions providing less care, and (ii) allocative inefficiency may be present, in that patients are not necessarily matched with the treatment they prefer.

Skutella, Martin

PD May 1999. **TI** A PTA'S For Minimizing the Total Weighted Completion Time on Identical Parallel Machines. **AU** Skutella, Martin; Woeginger, Gerhard J. **AA** Skutella: Technische Universitat Berlin. Woeginger: Technische Universitat Graz, Austria. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9929; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 17. **PR** $100 per year. **JE** C61, C63, C67, D24. **KW** Scheduling Theory. Approximation Algorithm. Worst-Case Ratio. Combinatorial Optimization.

AB We consider the problem of scheduling a job of n jobs on m identical parallel machines so as to minimize the weighted sum of job completion times. This problem is NP-hard in the strong sense. The best approximation result known so far was a .5(1+square root of 2)- approximation algorithm that has been derived by Kawaguchi and Kyan back in 1986. The contribution of this paper is a polynomial time approximation scheme for this setting, which settles a problem that was open for a long time. Moreover, our result constitutes the first known approximation scheme for a strongly NP-hard scheduling problem with minsum objective.

PD November 1999. **TI** Convex Quadratic and Semidefinite Programming Relaxations in Scheduling. **AA** Technische Universitat Berlin. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9963; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 38. **PR** $100 per year. **JE** C61, C63. **KW** Linear Programming. Convex Quadratic. Relaxation. MAXCUT Problem.

AB We consider the problem of scheduling unrelated parallel machines subject to release dates so as to minimize the total weighted completion time of jobs. The main contribution of this paper is a probably good convex quadratic programming relaxation of strongly polynomial size for this problem. The best previously known approximation algorithms are based on LP relaxations in time- or interval-indexed variables. Those LP relaxations, however, suffer from a huge number of variables. As a result of the convex quadratic programming approach we can give a very simple and easy to analyze randomized 2-approximation algorithm which can be further improved to performance guarantee 3/2 in the absence of release dates. We also consider preemptive scheduling problems and derive approximation algorithms and results on the power of preemption which improve upon the best previously known results for these settings. Finally, for the special case of two machines we introduce a more sophisticated semidefinite programming relaxation and apply the random hyperplane technique introduced by Goemans and Williamson for the MAXCUT problem; this leads to an improved 1.2752-approximation.

Slade, Margaret E.

TI Incentive Contracting and the Franchise Decision. **AU** Lafontaine, Francine; Slade, Margaret E.

Slaughter, Matthew J.

TI What Determines Individual Trade Policy Preferences? **AU** Scheve, Kenneth F.; Slaughter, Matthew J.

PD May 1998. **TI** International Trade and Per Capita Income Convergence: A Difference- in-Differences Analysis. **AA** Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6557; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 16. **PR** $5.00. **JE** D30, F13, F14, F43. **KW** International Trade. Income Convergence. Trade Liberalization. Income Dispersion.

AB In this paper I analyze whether international trade contributes to per capita income convergence across countries. The analysis focuses on four important post-1945 multilateral trade liberalizations. To identify trade's effect on income dispersion, in each case I use a "difference- in-differences" approach which compares the convergence pattern among the liberalizing countries before and after liberalization with the convergence pattern among randomly chosen control countries before and after liberalization. My main empirical result is that trade liberalization did not trigger convergence in any of the four cases. If anything, trade seems to have caused income divergence.

TI Does the Sector Bias of Skill-Biased Technical Change Explain Changing Wage Inequality? **AU** Haskel, Jonathan E.; Slaughter, Matthew J.

PD June 1998. **TI** What Are the Results of Product-Price Studies and What Can We Learn From Their Differences? **AA** Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6591; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 39. **PR** $5.00. **JE** F15, F41, J31. **KW** Trade. Wage Inequality. Relative Prices. Economic Methodology.

AB In recent years many economists have analyzed whether international trade has contributed to rising U.S. wage inequality by changing relative product prices. In this paper I survey the findings of nine "product-price" studies which together demonstrate how the methodology of product-price studies have evolved. I then synthesize the findings of these nine studies and draw two main conclusions. The first conclusion is that this literature has a refined set of empirical strategies for applying the Stolper-Samuelson theorem to the data from which important methodological lessons can be learned. The second main conclusion is that despite the methodological progress that has been made, research to date still has fundamental limitations regarding the key question of how much international trade has contributed to rising wage inequality. Most importantly, more work needs to link exogenous forces attributable to international trade to actual product-price changes.

Slemrod, Joel

TI The Determinants of Income Tax Compliance: Evidence from a Controlled Experiment in Minnesota. **AU** Blumenthal, Marsha; Christian, Charles; Slemrod, Joel.

TI Are "Real" Responses to Taxes Simply Income Shifting Between Corporate and Personal Tax Bases? **AU** Gordon, Roger H.; Slemrod, Joel.

PD May 1998. **TI** A General Model of the Behavioral Response to Taxation. **AA** University of Michigan Business School and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6582; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 13. **PR** $5.00. **JE** H24, H26, H31, J22. **KW** Income Taxes. Tax Evasion. Avoidance. Labor Supply.

AB This paper generalizes the standard model of how taxes affect the labor-leisure choice by allowing individuals to change both their labor supply and avoidance effort in response to tax changes. Doing so reveals that both the income and substitution effect of taxes depend on both preferences and the avoidance technology, and econometric analysis will not in general allow one to separately identify the two influences. The effective marginal tax rate on working must be modified by the addition of an avoidance-facilitating effect, which measures how much the cost of avoidance declines with higher true income. In an extreme case in which the cost of avoidance depends only on reported income, taxation has no compensated effect on labor supply regardless of preferences. This model provides a conceptual structure for evaluating to what extent, and in what situations, the opportunities for avoidance mitigate the real substitution response to tax reform.

PD May 1998. **TI** Did Steve Forbes Scare the Municipal Bond Market? **AU** Slemrod, Joel; Greimel, Timothy. **AA** Slemrod: University of Michigan Business School and and National Bureau of Economic Research. Greimel: University of Michigan. **SR** National Bureau of Economic Research Working Paper: 6583; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 13. **PR** $5.00. **JE** G10, H24. **KW** Flat Tax. Municipal Bonds. Implicit Taxes.
AB Evidence from daily market data is consistent with the view that the implicit tax rate on 5-year municipal bonds was affected by the chance of a flat tax becoming law, as proxied by the price of Steve Forbes' shares on the Iowa Electronic Market for political candidates; the spread was also affected by the likelihood of a Republican president and the impact of deficit reduction. No similar evidence for the impact of the flat tax could be found for the 30-year municipal market, although that spread does seem to be affected by the probability of a Republican winning the White House. These findings are consistent with market participants taking the flat tax seriously as a short run possibility, but believing that over a three-decade period the taxation of capital is more likely to be influenced by the party in power than the tax reform fad of the moment.

PD May 1998. **TI** The Economics of Taxing the Rich. **AA** University of Michigan Business School and and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6584; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 32. **PR** $5.00. **JE** H22, H23, H24, H26, H31. **KW** Tax Reform. Wealthy. Tax Evasion. Income Taxes.
AB How much and how to tax high-income individuals is at the core of many recent proposals for incremental as well as fundamental tax reform. This paper critically reviews the economics literature and concludes that the right answer to these questions depends in part on value judgments about which economics has little to contribute, but also depends on standard economics concerns such as the process generating income and wealth, and whether wealthy individuals' economic activities have positive (or negative) externalities. How much and how to tax the rich also depends critically on how they will respond to attempts to tax them because, other things equal, it is wise to limit the extent to which they are induced to pursue less socially productive activities in order to avoid taxes.

Slifman, Larry
TI Recent Trends in Compensation Practices. **AU** Lebow, David E.; Sheiner, Louise; Slifman, Larry; Starr-McCluer, Martha.

Sloth, Birgitte
TI Evolutionary Learning in Signaling Games. **AU** Jacobsen, Hans Jorgen; Jensen, Mogens; Sloth, Birgitte.

Smeers, Yves
TI Alternative Models of Restructured Electricity Systems Part 1: No Market Power. **AU** Boucher, Jacqueline; Smeers, Yves.

TI Variational Inequality Models of Restructured Electricity Systems. **AU** Daxhelet, Oliver; Smeers, Yves.

Smith, Jeffrey A.
TI Evaluating the Welfare State. **AU** Heckman, James J.; Smith, Jeffrey A.

TI Substitution and Dropout Bias in Social Experiments: A Study of an Influential Social Experiment. **AU** Heckman, James J.; Hohmann, Neil; Smith, Jeffrey A.; Khoo, Michael.

Somerville, Tsuriel C.
TI Unifying Empirical and Theoretical Models of Housing Supply. **AU** Mayer, Christopher J.; Somerville, Tsuriel C.

Sorensen, Bent E.
TI Risk Sharing and Industrial Specialization: Regional and International Evidence. **AU** Kalemli-Ozcan, Sebnem; Sorensen, Bent E.; Yosha, Oved.

TI Risk Sharing and Industrial Specialization: Regional and International Evidence. **AU** Kalemli-Ozcan, Sebnem; Sorensen, Bent E.; Yosha, Oved.

PD August 1999. **TI** Output Fluctuations and Fiscal Policy: U.S. State and Local Governments 1978-1994. **AU** Sorensen, Bent E.; Wu, Lisa; Yosha, Oved. **AA** Sorensen: Federal Reserve Bank of Kansas City. Wu: Department of Finance, Canada. Yosha: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 22/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 53. **PR** no charge. **JE** E60, H72. **KW** Fiscal Policy. Fluctuations. Income and Consumption Smoothing. State and Local Governments. Political Business Cycles.
AB What are the cyclical properties of U.S. state and local government fiscal policy? The budget surplus of local and, in particular, state governments is pro-cyclical, smoothing disposable income and consumption of state residents. This happens over both short and medium term horizons. Pro-cyclical surpluses are the result of strongly pro-cyclical revenues, and weakly pro-cyclical expenditures. The budgets of trust funds and utilities are pro-cyclical. Federal grants are pro-cyclical, exacerbating the cyclical amplitude of state level income movements; although they smooth the idiosyncratic component of shocks to state output. State and local budget surpluses are affected by balanced budget rules at the short- but not at the medium term horizon. Further, budgets are less pro-cyclical in conservative states.

Spector, David
PD March 1999. **TI** Rational Debate and One-

Dimensional Conflict. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology, Department of Economics Working Paper: 99/09; Massachusetts Institute of Technology, Department of Economics, Room E52-262, 50 Memorial Drive, Cambridge, MA 02142. **PG** 45. **PR** $7.00 U.S., Canada, Mexico; $10.00 other international. **JE** C11, C73, D70, D82, D83. **KW** Collective Choice. Information Aggregation. Cheap Talk. Conflict. Game Theory.

AB This paper studies repeated communication regarding a multidimensional collective decision in a large population. When preferences coincide but beliefs about the consequences of the various decisions diverge, it is shown, under some specific assumptions, that public communication causes the disagreement between beliefs either to vanish or to become one-dimensional at the limit. Multidimensional disagreement allows indeed for many directions of communication, including some which are orthogonal to the conflict, along which agents can communicate credibly. The possible convergence toward a one- dimensional conflict where no further communication takes place may be related to the empirically observed geometry of the political conflict in many countries.

Spiegler, Ron

PD July 1999. **TI** Reason-Based Choice and Justifiability in Extensive Form Games. **AA** Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 19/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 42. **PR** no charge. **JE** C72, D81. **KW** Reason-Based Choice. Justifiability. Strategic Uncertainty. Regret- Proofness.

AB This paper proposes a procedurally rational solution concept for two- person extensive-form games with complete information. The solution concept is based on the observation that the ex-post justifiability of choices is often a primary concern for decision-makers, especially in organizations. The essential departure from standard rationality lies in the assumption that players have to consider not only the optimality of their strategy, but also the reasonableness of the beliefs that support it. Specially, they face ex-post criticism, which consists of (deterministic) theory of the opponent's strategy as well as an alternative recommended strategy. The theory must be consistent with the history and there can be no consistent theory that is simpler. The alternative strategy must do better than the player's strategy against the theory. The player's strategy is justifiable if he can make a certain equivalent counter-argument against such criticism: Had he followed the critics recommendation, an identical criticism could have been made that recommended the very strategy under criticism. A pair of justifiable strategies constitutes an equilibrium. The solution concept is applied to several well-known extensive-form games, including the centipede game and the chain-store game. The solution concept yields intuitive predictions in these games.

Sriram, Subramanian S.

PD May 1999. **TI** Survey of Literature on Demand for Money: Theoretical and Empirical Work with Special Reference to Error-Correction Models. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/64; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 53. **PR** not available. **JE** C21, E41, E49. **KW** Money Demand. Literature Survey. Cointegration. Error Correction. Monetary Policy.

AB A stable money demand forms the cornerstone in formulating and conducting monetary policy. Consequently, numerous theoretical and empirical studies have been conducted in both industrial and developing countries to evaluate the determinants and the stability of the money demand function. This paper briefly reviews the theoretical work, tracing the contributions of several researchers beginning from the classical economists, and explains relevant empirical issues in modeling and estimating money demand functions. Notably, it summarizes the salient features of a number of recent studies that applied cointegration/error-correction models in the 1990s, and it features a bibliography to aid in research on demand for money.

Staiger, Robert W.

TI The Simple Economics of Labor Standards and the GATT. **AU** Bagwell, Kyle; Staiger, Robert W.

Stambaugh, Robert F.

TI Costs of Equity Capital and Model Mispricing. **AU** Pastor, Lubos; Stambaugh, Robert F.

Stark, Tom

PD January 2000. **TI** Does Current-Quarter Information Improve Quarterly Forecasts for the U.S. Economy? **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 00/02; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website: www.phil.frb.org/econ/index.html. **PG** 33. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** C53, E27, E37, E47. **KW** Forecasting. Current Data. Error Corrections. Monthly Data.

AB This paper presents new evidence on the benefits of conditioning quarterly model forecasts on monthly current-data. On the basis of a quarterly Bayesian vector error corrections model, the findings indicate that such conditioning produces economically relevant and statistically significant improvement. The improvement, which begins as early as the end of the first week of the second month of the quarter, is largest in the current quarter, but in some cases, extends beyond the current quarter. Forecast improvement is particularly large during periods of recessions but generally extends to other periods as well. Overall, the findings suggest that it is rational to update one's quarterly forecast in response to incoming monthly data.

TI A Real-Time Data Set for Macroeconomists. **AU** Croushore, Dean; Stark, Tom.

TI Does Data Vintage Matter for Forecasting? **AU** Croushore, Dean; Stark, Tom.

TI A Real-Time Data Set For Macroeconomists: Does the Data Vintage Matter? **AU** Croushore, Dean; Stark, Tom.

Starr-McCluer, Martha

PD March 1999. **TI** The Measurement of Consumer Expectations Using Survey Data. **AA** Board of Governors of

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/17; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 24. **PR** no charge. **JE** D12, D84, E12, E21. **KW** Consumption. Household Behavior. Expectations. Survey Data. Probability Bounds.

AB Surveys of consumers collect considerable information on consumer expectations. However, the simple categorical structure of the questions -- such as "Do you expect your income to rise, fall, or stay the same?" -- makes their value for research uncertain. This paper analyzes the information content of the survey measures. I draw on Manski's finding that, while categorical questions do not identify the probability of an event occurring, they do provide information on probability bounds. I analyze data from two well-known surveys, showing that, although the bounds are often wide, for some measures they move closely with the series they are intended to track or predict.

TI Recent Trends in Compensation Practices. **AU** Lebow, David E.; Sheiner, Louise; Slifman, Larry; Starr-McCluer, Martha.

Stavins, Joanna

PD October 1996. **TI** Price Discrimination in the Airline Market: The Effect of Market Concentration. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/07; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 25. **PR** No charge. **JE** D42, D43, L12, L13, L93. **KW** Monopoly. Industrial Organization. Price Discrimination. Market Structure. Pricing.

AB Economic theory suggests that a monopolist can price discriminate more successfully than can a perfectly competitive firm. Most real-life markets, however, fall somewhere in between the two extremes. What happens as the market becomes more competitive: Does price discrimination increase or decrease? This paper examines how price discrimination changes with market concentration in the airline market. The paper uses data on prices and ticket restrictions across various routes within the United States, controlling for distances and airport gate restrictions. Price discrimination is found to increase as the markets become more competitive.

Steel, Mark F. J.

TI We Just Averaged Over Two Trillion Cross-Country Growth Regressions. **AU** Ley, Eduardo; Steel, Mark F. J.

Stein, Jeremy C.

TI Bad News Travels Slowly: Size, Analyst Coverage and the Profitability of Momentum Strategies. **AU** Hong, Harrison; Lim, Terrence; Stein, Jeremy C.

Stein, Jerome L.

TI Methodological Issues in Asset Pricing: Random Walk or Chaotic Dynamics. **AU** Malliaris, A. G.; Stein, Jerome L.

PD March 1999. **TI** European Union: Convergence, Balanced Growth and the Steady State. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/06; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 31. **PR** no charge. **JE** F15, F21, F23, O18, O21. **KW** Growth. Regional Growth. European Integration. Capital Movements. Factor Movements.

AB With the creation of the European Monetary Union, what can we expect will be the patterns of growth within Europe and between Europe and the rest of the G7? First, we briefly explain why the well known Solow model of a closed economy, as well as an open economy version, are inadequate to answer the questions posed. Second, we use the regional growth model to answer the questions concerning intra-European growth. Here, we draw upon the considerable evidence from the patterns of growth within the US. Third, we use a model of capital market integration between two specialized countries with a unified capital market, to answer the questions concerning the patterns of growth between Europe and the rest of the G7. The analyses in parts II and III explain the process of integration in the stages of convergence, balanced growth and steady state.

Steinmeier, Thomas L.

TI Social Security Benefits of Immigrants and U.S. Born. **AU** Gustman, Alan L.; Steinmeier, Thomas L.

Steinmetz, Sebastien

PD January 1999. **TI** On the Existence of Spatial Monopolies Under Free Entry. **AU** Steinmetz, Sebastien; Zenou, Yves. **AA** Steinmetz: INRA-Grignon and Laboratoire d'Econometrie de l'Ecole Polytechnique. Zenou: Universite' de Maine. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9901; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 13. **PR** $100 per year. **JE** D42, L12, L13, R32. **KW** Horizontal Differentiation. Entry. Local Monopolies. Spatial Contestability.

AB In a model of horizontal product differentiation, we show that local monopolies may exist under free entry when capital is perfectly mobile. In contrast both with the situation of restricted entry and with the zero-profit approach to free entry outcomes of Salop (1979), the unit profit rate of incumbent monopolists is positive and bounded above in equilibrium. The upper bound we find decreases with the size of unserved market areas and with the number of incumbent monopolists.

Stern, Scott

TI The Adoption and Impact of Advanced Emergency Response Services. **AU** Athey, Susan; Stern, Scott.

TI An Empirical Framework for Testing Theories About Complementarity in Organizational Design. **AU** Athey, Susan; Stern, Scott.

Stinebrickner, Todd R.

PD November 1998. **TI** Serially Correlated Wages in a Dynamic, Discrete Choice Model of Teacher Attrition. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9821; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 47. **PR** $10.00 Canadian per paper. **JE** C13, C14, C51, J24, J44. **KW** Serial Correlation. Dynamic Models. Discrete Choice.

Occupational Choice. Teachers.
AB This paper suggests and implements a method for dealing with the problems which are encountered during the estimation of dynamic, discrete choice models with serially correlated unobservables. The method takes advantage of Gaussian quadrature integral approximation techniques and is based on a new, non-parametric value function approximation algorithm which allows the econometrician to avoid potentially problematic functional form specifications. A desirable property of the approach is that the econometrician has complete control over the factors which ensure that parameter estimates from an approximate solution to a model with serial correlation can be made arbitrarily close to the true parameter estimates. This property potentially allows the econometrician to gauge how close the approximate solution to a model with serially correlated unobservables is to the true solution. The method is illustrated using an example of the occupational choice decisions of certified elementary and high school teachers.

Stock, James H.

PD April 1998. **TI** Business Cycle Fluctuations in U.S. Macroeconomic Time Series. **AU** Stock, James H.; Watson, Mark W. **AA** Stock: Harvard University and National Bureau of Economic Research. Watson: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6528; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** E22, E32, E37, E43. **KW** Aggregate Fluctuations. Long-Run Relationships. Phillips Curve. Individual Series.
AB This paper examines the empirical relationship in the postwar United States between the aggregate business cycle and various aspects of the macroeconomy, such as production, interest rates, prices, productivity, sectoral employment, investment, income, and consumption. This is done by examining the strength of the relationship between the aggregate cycle and the cyclical components of individual time series, whether individual series lead or lag the cycle, and whether individual series are useful in predicting aggregate fluctuations. The paper also reviews some additional empirical regularities in the U.S. economy, including the Phillips curve and some long-run relationships, in particular long- run money demand, long-run properties of interest rates and the yield curve, and the long-run properties of the shares in output of consumption, investment, and government spending.

PD June 1998. **TI** A Comparison of Linear and Nonlinear Univariate Models for Forecasting. **AU** Stock, James H.; Watson, Mark W. **AA** Stock: Harvard University and National Bureau of Economic Research. Watson: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6607; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** not available. **PR** $5.00. **JE** C22, C32, C53. **KW** Forecasting. Time Series. Autoregressions. Exponential Smoothing. Neural Networks.
AB A forecasting comparison is undertaken in which 49 univariate forecasting methods, plus various pooling procedures, are used to forecast 215 U.S. monthly macroeconomic time series at three forecasting horizons over the period 1959-1996. All forecasts simulate real time implementation, that is, they are fully recursive. The forecasting methods are based on four classes of models: autoregressions (with and without unit root pretests), exponential smoothing, artificial neural networks, and smooth transition autoregressions. The best overall performance of a single method is achieved by autoregressions with unit root pretests, but this performance can be improved when it is combined with the forecasts from other methods.

Subramanian, Narayanan

TI Forum-Shopping and Personal Bankruptcy. **AU** Elul, Ronel; Subramanian, Narayanan.

Sulganik, Eyal

PD September 1999. **TI** The Choice of Acquiring Medical Information in Life Insurance Markets. **AU** Sulganik, Eyal; Zilcha, Itzhak. **AA** Sulganik: The Interdisciplinary Centre, Herzlia. Zilcha: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 28/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 25. **PR** no charge. **JE** C72, D81, D82, G22. **KW** Information. Signaling. Life-Insurance. Uncertainty.
AB Consider individuals facing uncertain lifetime (and hence uncertain future incomes). Each individual must go through (identical) medical checkups. The choice of a medical expert that interprets the results, and hence provides more information about the random lifetime, must be done prior to the checkup. We show that in the absence of life insurance market a better medical expert is preferable by all individuals. However, when life insurance market exists, and the medical checkup is carried out prior to purchasing life insurance policy, some individuals may choose the inferior medical expert even though the checkup has not taken place yet.

Sundaram, Rangarajan K.

TI A Discrete-Time Approach to Arbitrage-Free Pricing of Credit Derivatives. **AU** Das, Sanjiv Ranjan; Sundaram, Rangarajan K.

TI Fee Speech: Signaling and the Regulation of Mutual Fund Fees. **AU** Das, Sanjiv Ranjan; Sundaram, Rangarajan K.

Sussman, Oren

TI Finance and Growth: Theory and New Evidence. **AU** Harrison, Paul; Sussman, Oren; Zeira, Joseph.

Svensson, Lars E. O.

TI Policy Rules for Inflation Targeting. **AU** Rudebusch, Glenn D.; Svensson, Lars E. O.

PD May 1998. **TI** Open-Economy Inflation Targeting. **AA** Stockholm University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6545; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 40. **PR** $5.00. **JE** E52, E58, F41. **KW** Inflation Targeting. Open Economy. Monetary Transmission. Conditions Index.
AB The paper extends previous analysis of closed-economy inflation targeting to a small open economy with forward-looking aggregate supply and demand with some

https://doi.org/10.1017/S0951007900004976 Published online by Cambridge University Press

microfoundations, and with stylized realistic lags in the different transmission channels for monetary policy. The paper compares targeting of CPI and domestic inflation, strict and flexible inflation targeting, and inflation-targeting reaction functions and the Taylor rule. The optimal monetary policy response to several different shocks is examined. Flexible CPI-inflation targeting stands out as successful in limiting not only the variability of CPI inflation but also the variability of the output gap and the real exchange rate. Somewhat counter to conventional wisdom, negative productivity supply shocks and positive demand shocks have similar effects on inflation and the output gap, and induce similar monetary policy responses. The model gives limited support for a so-called monetary conditions index, MCI, of the monetary policy impact on aggregate demand, but the impact on inflation is too complex to be captured by any single index. The index differs from currently used indices in combining (1) a long rather than a short real interest rate with the real exchange rate and (2) expected future values rather than current values. Because of (2), the index is not directly observable and verifiable to external observers.

Swagel, Phillip

TI Measures of Potential Output: An Application to Israel. **AU** Scacciavillani, Fabio; Swagel, Phillip.

Swaine, Daniel G.

PD August 1998. **TI** What Do Cross-Sectional Growth Regressions Tell Us about Convergence? **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 98/04; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 25. **PR** No charge. **JE** B40, C21, O10, O40, R11. **KW** Convergence. Exogenous Growth. Transitional Dynamics. Cross-Sectional Data.

AB This paper tests the dynamic implications of beta-convergence with time-series data from the 48 contiguous U.S. states. The motivation for this paper rests with the interpretation of results from cross-sectional growth regressions. These results show that poor regions experience faster per-capita income growth than rich regions. This is interpreted as evidence of convergence. However, convergence is a dynamic adjustment process with testable implications in time-series data, while the literature employs cross-sectional data to estimate this dynamic concept. A set of strong assumptions must be made to jump from this cross-sectional correlation to its interpretation as a speed of convergence. We find that the time-series properties of the data appear to be inconsistent with beta-convergence dynamics. Further, our analysis rejects the assumptions necessary to interpret the cross-sectional correlation as a speed of convergence. Therefore, our results call into question the interpretation that has been placed on this important cross-sectional finding.

Sy, Amadou N. R.

PD July 1999. **TI** Managerial Entrenchment and the Choice of Debt Financing. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/94; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 26. **PR** not available. **JE** G21, G23, G32. **KW** Covenant Restrictions. Credit Risk. Managerial Entrenchment. Private Debt. Public Debt.

AB The paper analyzes the choice between public and private debt by an entrenched manager. The model shows that when the firm's credit risk is low, management issues public bonds because of the value gains from increased flexibility rather than reduced restrictions and monitoring. In fact, management's expected private gains decrease as initial private debt restrictions are selectively relaxed. In contrast, when credit risk is high, management issues private debt because of the value gains and private benefits from renegotiating more stringent restrictions. When the maturity of private debt is shortened, however, privately and publicly placed bonds can be preferred to bank debt.

Taber, Christopher

TI Tax Policy and Human Capital Formation. **AU** Heckman, James J.; Lochner, Lance; Taber, Christopher.

Tamirisa, Natalia T.

PD July 1999. **TI** Trade in Financial Services and Capital Movements. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/89; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 19. **PR** not available. **JE** E44, F14, F21, F32, F36. **KW** Financial Services. Capital Movements. Trade. OECD.

AB International financial liberalization may alter saving-investment imbalances and patterns of capital flows across countries. In a panel of OECD countries for 1990-96, this study examines how the liberalization of capital movements and financial services trade affects net private capital flows. Capital inflows tend to fall (rise) with the liberalization of commercial presence in banking and securities (insurance) services, possibly reflecting an increase (decrease) in saving. Capital account liberalization is found to stimulate capital inflows, suggesting that better access to external financing helps sustain larger fiscal and current account deficits. When cross-border trade is liberalized, capital flows change insignificantly.

Tanner, Sarah

TI Asset Holding and Consumption Volatility. **AU** Attanasio, Orazio P.; Banks, James; Tanner, Sarah.

Tarp, Finn

PD May 1998. **TI** Danish Aid Policy: Theory and Empirical Evidence. **AU** Tarp, Finn; Bach, Christian F.; Baunsgaard, Soren; Hansen, Henrik. **AA** Tarp, Bach and Baunsgaard: University of Copenhagen. Hansen: The Royal Veterinary and Agricultural University, Copenhagen. **SR** University of Copenhagen, Institute of Economics Discussion Paper: 98/06; Institute of Economics, University of Copenhagen, Studiestraede 6, DK-1455 Copenhagen K, Denmark. Website: www.econ.ku.dk. **PG** 22. **PR** Free. **JE** C33, F35, O19. **KW** Foreign Aid. Denmark. Aid Allocation. Panel Data. Development.

AB This paper is a study of Danish aid policy from the early 1960's to 1995. It includes (i) a review of officially stated aims and criteria, (ii) a descriptive analysis of actual behavior in international comparative perspective, (iii) a review of the theoretical and empirical aid allocation literature, and (iv) a series of panel data regressions to further explore how Danish bilateral aid was distributed country-by- country. A theoretical model explaining how the allocation process took place is formulated. It underpins the empirical analysis from which it transpires that a two step model is a useful way of analyzing

Danish aid allocations. The first step is whether to select a country or not, and the second involves the decision of how much aid to commit. The empirical analysis demonstrates that Danish aid has been guided in both steps by officially stated aims and criteria in an expected and statistically significant manner.

Taylor, Alan M.

TI Nonlinear Aspects of Goods-Market Arbitrage and Adjustment: Heckscher's Commodity Points Revisited. **AU** Obstfeld, Maurice; Taylor, Alan M.

TI Finance and Development in an Emerging Market: Argentina in the Interwar Period. **AU** Della Paolera, Gerardo; Taylor, Alan M.

TI Internal Versus External Convertibility and Developing-Country Financial Crises: Lessons from the Argentine Bank Bailout of the 1930's. **AU** Della Paolera, Gerardo; Taylor, Alan M.

Temimi, Akram

TI Discrete Public Goods with Incomplete Information. **AU** Menezes, Flavio M.; Monteiro, Paulo K.; Temimi, Akram.

Thisse, Jacques-Francois

TI Monopolistic Competition, Multiproduct Firms and Optimum Product Diversity. **AU** Ottaviano, Gianmarco I. P.; Thisse, Jacques-Francois.

TI Agglomeration and Trade Revisited. **AU** Ottaviano, Gianmarco I. P.; Thisse, Jacques-Francois.

Thode, Eric

TI Real Wage Rigidities, Fiscal Policy, and the Stability of EMU in the Transition Phase. **AU** Berthold, Norbert; Fehn, Rainer; Thode, Eric.

Thomas, Mark

TI Consumption Smoothing Among Working-Class American Families Before Social Insurance. **AU** Palumbo, Michael G.; James, John A.; Thomas, Mark.

Tinsley, P. A.

PD September 1998. **TI** Short Rate Expectations, Term Premiums, and Central Bank Use of Derivatives to Reduce Policy Uncertainty. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/14; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 21. **PR** no charge. **JE** E43, E52, E58, G13. **KW** Bond Options. Nominal Rates. Term Premiums. Interest Rates. Monetary Policy.

AB The term structure of interest rates is the primary transmission channel of monetary policy. Under the expectations hypothesis, anticipated settings of the short-term interest rate controlled by the central bank are the main determinants of nominal bond rates. Historical experience suggests that bond rates may remain relatively high even if the short-term interest rate is reduced to zero, in part due to term premiums reflecting uncertainty about future policy. Term spreads due to policy uncertainty may be reduced by central bank trading desk options that provide insurance against future deviations from an announced interest rate policy.

Tootell, Geoffrey M. B.

PD November 1996. **TI** Redlining in Boston: Do Mortgage Lenders Discriminate Against Neighborhoods? **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/06; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono. **PG** 21. **PR** No charge. **JE** G21, G28, J71. **KW** Mortgages. Discrimination. Banking. Redlining. Regulation.

AB Historically, lenders have been accused of "redlining" minority neighborhoods as well as refusing to lend to minority applicants. Considerable bank regulation is designed to prevent both actions. However, the strong correlation between race and neighborhood makes it difficult to distinguish the impact of geographic discrimination from the effects of racial discrimination. Previous studies have failed to untangle these two influences, in part, because of severe omitted variable bias. The data set in this paper allows the distinct effects of race and geography to be identified, and it shows that the evidence for redlining is weak.

PD November 1996. **TI** Can Studies of Application Denials and Mortgage Defaults Uncover Taste-Based Discrimination? **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/10; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106- 2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 18. **PR** No charge. **JE** G21, J71. **KW** Mortgages. Discrimination. Banking. Loans.

AB The first section of this paper outlines a simple model of loan acceptance. The next section reviews how an examination of conditional denial rates avoids many difficulties with uncovering discrimination. The third section discusses the problems associated with analyzing conditional default rates. It is shown that the assumptions necessary to make conditional default rate analysis an effective approach to uncover discrimination are sufficient to make studies of conditional denial rates effective tools. The paper concludes by analyzing the relative power of default and denial studies to reveal discrimination in mortgage lending when less restrictive assumptions are made. It is found that the debate over denial versus defaults is misdirected; examining denials is a marginally better method to uncover discrimination. Much of the apparent debate was really over the potential importance of omitted variables.

PD December 1996. **TI** Reserve Banks, the Discount Rate Recommendation, and FOMC Policy. **AA** Federal Reserve Bank of Boston. **SR** Federal Reserve Bank of Boston Working Paper: 96/11; Research Library, Federal Reserve Bank of Boston, P.O. Box 2076 Boston, MA 02106-2076. Website: www.bos.frb.org/economic/wpchrono.htm. **PG** 20. **PR** No charge. **JE** E42, E43, E52, E58. **KW** Monetary Policy. Credit. Interest Rates. Discount Rates. Central Banks.

AB The boards of directors of the 12 District Reserve Banks are the rare private citizens who play a role in government decisionmaking. Although the nine leaders on each local board do not directly set policy, they do recommend changes in the discount rate to the Board of Governors. On the surface their role in monetary policy deliberations in only advisory; however, their influence could, in fact, be substantially more significant if they actually affect the FOMC votes of their respective Reserve Bank presidents. This paper examines this more significant link to monetary policy by testing the relationship between the discount rate recommendation of the Reserve Bank's board and the vote of that District's Bank president at the FOMC. It is shown that the FOMC votes of Reserve Bank presidents are significantly correlated with their board of directors' current discount rate recommendation.

TI Does the Federal Reserve Have an Informational Advantage? You Can Bank on It. **AU** Peek, Joe; Rosengren, Eric S.; Tootell, Geoffrey M. B.

Tornell, Aaron

PD April 1998. **TI** Reform From Within. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6497; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 42. **PR** $5.00. **JE** C73, D99, E62, O40. **KW** Reform. Institutional Change. Resource Appropriation. Political Power.

AB We present a model of endogenous institutional change that rationalizes reforms that have taken place in the context of economic crisis and drastic political change. Most of the reforms have been initiated by powerholders, even though they have ended worse off relative to the status quo. The first point we make is that reform is the tool used by some powerful groups to limit the power of their political opponents. The second point is that groups with "common access" to the economy's resources find it individually rational to over-appropriate resources. As a result the economy deteriorates. When the economy reaches a crisis conflict among groups erupts. Reform is the result of this conflict.

PD April 1998. **TI** Voracity and Growth. **AU** Tornell, Aaron; Lane, Phillip R. **AA** Tornell: Harvard University and National Bureau of Economic Research. Lane: Trinity College Dublin. **SR** National Bureau of Economic Research Working Paper: 6498; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 27. **PR** $5.00. **JE** F43, O11, O23, O40. **KW** Political Power. Fiscal Process. Shocks. Growth.

AB We analyze an economy that lacks a strong legal-political institutional infrastructure and is populated by multiple powerful groups. Powerful groups dynamically interact via a fiscal process that effectively allows open access to the aggregate capital stock. In equilibrium, this leads to slow economic growth and a "voracity effect," by which a shock, such as a terms of trade windfall, perversely generates a more than proportionate increase in fiscal redistribution and reduces growth. We also show that a dilution in the concentration of power leads to faster growth and a less procyclical response to shocks.

TI Why Aren't Savings Rates in Latin America Procyclical? **AU** Lane, Phillip R.; Tornell, Aaron.

Trajtenberg, Manuel

TI International Knowledge Flows: Evidence from Patent Citations. **AU** Jaffe, Adam B.; Trajtenberg, Manuel.

PD February 1999. **TI** Innovation in Israel 1968-97: A Comparative Analysis Using Patent Data. **AA** Tel-Aviv University, National Bureau of Economic Research and CIAR. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 10/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 30. **PR** no charge. **JE** O31, O34, O53, O57. **KW** Patents. Citations. Israeli Economy. High Tech.

AB This paper examines Israeli innovation over the past 30 years, using all Israeli patents taken in the U.S. (over 7,000), as well as U.S. patents and patents from other countries for comparison. Israeli patenting jumped dramatically in the mid-eighties and again in the early nineties, reflecting underlying policy shocks in the availability of relevant inputs. Israel ranks high in terms of patents per capita, compared to the G7, the "Asian Tigers" and a group of countries with similar GDP per capita. Finland, Taiwan, and South Korea have patenting performance comparable to Israel's. The technological composition of Israeli innovations reflects world-wide trends, except that Computers and Communications, the fastest growing field in the U.S., has grown even faster in Israel. The weak side resides in the composition of Israeli assignees, the actual owners of the intellectual property rights: Just 35% of Israeli patents were assigned to Israeli corporations, a much lower percentage than in most other countries. Relatively large shares went to foreign assignees, to Universities and the Government, and to private inventors. Israeli patents are of good "quality" in terms of citations, except in Computers and Communications or in Biotechnology, and are significantly better than those of the reference countries.

Tranaes, Torben

TI Skill-Neutral Shocks and Institutional Changes: Implications for Productivity Growth and Wage Dispersion. **AU** Ejarque, Joao; Tranaes, Torben.

Tulkens, Henry

TI The Kyoto Protocol: An Economic and Game Theoretic Interpretation. **AU** Chander, Parkash; Tulkens, Henry; Van Ypersele, Jean-Pascal; Willems, Stephane.

TI Simulating With RICE Coalitionally Stable Burden Sharing Agreements for the Climate Change Problem. **AU** Eyckmans, Johan; Tulkens, Henry.

Turrini, Alessandro

TI Assets, Human Capital, and Growth. **AU** Braila, Chrissopighi; Turrini, Alessandro.

TI Job Creation, Job Destruction, and the International Division of Labour. **AU** Jansen, Marion; Turrini, Alessandro.

TI Workers' Skills and Product Selection. **AU** Gabszewicz, Jean; Turrini, Alessandro.

TI A Remark on Voters' Rationality in Besley and Coate Model of Representative Democracy. **AU** De Sinopoli, Francesco; Turrini, Alessandro.

Tvede, Mich

TI Nonconvex n-Person Bargaining: Efficient Maxmin Solutions. **AU** Hougaard, Jens Leth; Tvede, Mich.

TI The Kalai-Smorodinsky Solution: A Generalization to

Nonconvex n- Person Bargaining. **AU** Hougaard, Jens Leth; Tvede, Mich.

Unal-Kesenci, Deniz

TI La Regionalisation du Commerce International: Une Evaluation par les Intensites Relatives Bilaterales. **AU** Freudenberg, Michael; Gaulier, Guillaume; Unal-Kesenci, Deniz.

Urbain, Jean-Pierre

TI Corporate Governance Structures, Control and Performance in European Markets: A Tale of Two Systems. **AU** Crama, Yves; Leruth, Luc; Renneboog, Luc; Urbain, Jean-Pierre.

Van Dijk, Herman K.

TI Adaptive Polar Sampling with an Application to a Bayes Measure of Value-at-Risk. **AU** Bauwens, Luc; Bos, Charles S.; Van Dijk, Herman K.

van Norden, Simon

TI The Reliability of Output Gap Estimates in Real Time. **AU** Orphanides, Athanasios; van Norden, Simon.

Van Wincoop, Eric

TI Capital Flows to Emerging Markets: Liberalization, Overshooting and Volatility. **AU** Bacchetta, Philippe; Van Wincoop, Eric.

Van Ypersele, Jean-Pascal

TI The Kyoto Protocol: An Economic and Game Theoretic Interpretation. **AU** Chander, Parkash; Tulkens, Henry; Van Ypersele, Jean-Pascal; Willems, Stephane.

TI The Kyoto Protocol: An Economic and Game Theoretic Interpretation. **AU** Chander, Parkash; Tulkens, Henry; Van Ypersele, Jean-Pascal; Willems, Stephane.

TI Financial Transfers to Sustain International Cooperation in the Climate Change Framework. **AU** Germain, Marc; Van Ypersele, Jean-Pascal.

Vanden Eeckaut, Philippe

TI Museum Assessment and FDH Technology: A Global Approach. **AU** Mairesse, Francois; Vanden Eeckaut, Philippe.

Vandenbussche, Hylke

PD March 1999. **TI** European Antidumping Policy and Firms Strategic Choice of Quality. **AU** Vandenbussche, Hylke; Wauthy, Xavier. **AA** Vandenbussche: Antwerpen, Centre for Economic Policy Research and Louvain-la-Neuve. Wauthy: Facultes Universitaries Saint-Louis, Bruxelles and Louvain-la-Neuve. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9916; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 20. **PR** $100 per year. **JE** F13, L13, L22. **KW** Bertrand Competition. Quality Choice. Welfare. Antidumping Policy.

AB This paper considers a European industry characterized by vertical product differentiation. Using a two-stage model with quality choice made before price competition takes place, the authors show that European Union antidumping policy that takes the form of price- undertakings offers a powerful protection to domestic firms, but only at the price competition stage. Once the impact of the anti-dumping policy on quality choices is taken into account, European Welfare as well as profits accruing to the domestic firm decrease whenever the free trade equilibrium is affected. Hence the paper shows that European Antidumping policies may induce "perverse" leapfrogging.

Vannetelbosch, Vincent

TI Coalitional Negotiation. **AU** Mauleon, Ana; Vannetelbosch, Vincent.

Velasco, Andres

TI Financial Fragility and the Exchange Rate Regime. **AU** Chang, Roberto; Velasco, Andres.

TI Financial Crises in Emerging Markets: A Canonical Model. **AU** Chang, Roberto; Velasco, Andres.

Vella, Francis

TI Nonparametric Estimation of Triangular Simultaneous Equation Models. **AU** Newey, Whitney K.; Powell, James L.; Vella, Francis.

Venkatesh, Sudhir Alladi

TI Drug-Selling Gang's Finances. **AU** Levitt, Steven D.; Venkatesh, Sudhir Alladi.

Ventura, Gustavo

TI Taxes and Marriage: A Two-Sided Search Analysis. **AU** Chade, Hector; Ventura, Gustavo.

Ventura, Jaime

TI Comparative Advantage and the Cross-Section of Business Cycles. **AU** Kraay, Aart.; Ventura, Jaime.

Veredas, David

TI The Stochastic Conditional Duration Model: A Latent Factor Model for the Analysis of Financial Durations. **AU** Bauwens, Luc; Veredas, David.

Viaene, Jean Marie

PD March 1999. **TI** Optimal Education When Capital Markets are Integrated. **AU** Viaene, Jean Marie; Zilcha, Itzhak. **AA** Viaene: Erasmas University and Tinbergen Institute, Rotterdam. Zilcha: Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 12/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 30. **PR** no charge. **JE** D90, E22, F21, J24. **KW** Altruism. Education. Human Capital. Capital Markets.

AB This paper considers a two-country model of overlapping generations economies with intergenerational transfers carried out in the form of bequest and investment in human capital. We examine in competitive equilibrium the optimal provision of education with and without capital markets integration. First, we explore how regimes of education -- public, private or mixed -- arise and how they affect the dynamics of autarkic economies. Second, we study the transitory and long-run effects of capital markets integration, in equilibrium, on the optimal provision of education and growth. Third, we examine a competition game where countries compete in the provision of public education.

Villa, Pierre

PD April 1997. **TI** Ces Taux de Change Reels qui Bifurquent. **AA** CEPII. **SR** CEPII Working Paper: 97/05; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 34. **PR** Free. **JE** D84, E31, F31, F42. **KW** Exchange Rates. Expectations. Limit Cycle. Peso. Multiple Equilibria.

AB Several explanations can be given for the observation that exchange rate expectations are not rational and are biased. First, there is no privileged information on the exchange rate market and expectations are based on conjectures about economic policy. Second, the acquisition of information is costly and can turn out to be unacceptable compared to the potential gains. Lastly, the cost of acquiring information can be so high that banks make a higher profit by selling hedging assets to their customers instead of selling the information which they must produce. In order to understand the consequences of these arguments at a macro level, a standard model is constructed, in which the real exchange rate is determined by the internal equilibrium, and external wealth by the external equilibrium. Two cases are described. The configurations explain why big monetary areas cannot agree upon a coordination procedure concerning exchange rates in the Williamson sense.

PD May 1997. **TI** Incertitude Sur le Choix du Modele et Rationalite. **AA** CEPII. **SR** CEPII Working Paper: 97/09; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 38. **PR** Free. **JE** C72, E10, E44, F42, H11. **KW** Keynesian Expectations. Ricardian Expectations. International Cooperation. Nash Equilibrium. Macroeconomic Models.

AB Whether the world is classical or keynesian, it is compelling for agents. They cannot, in macroeconomics, command a belief which does not fit the facts. The authors illustrate this proposition with three examples: the economic policy of the government vs. its interpretation by financial markets, the coordination of economic policies in a two country world and the economic policy vs. private consumers' behavior. Extrinsic and intrinsic uncertainties are not relevant in this framework. In all cases, uncertainty is objective and concerns the model of the economy, and not the states of nature, neither the set of strategies of the other player, whose objective function is perfectly known by the first player. So there is never an infinite regress problem concerning the beliefs about beliefs. The question addressed to macroeconomists is: How can we thus define the long run? The following paper aims at clarifying the authors' approach.

TI Internal and External Policy Coordination: A Dynamic Analysis. **AU** Capoen, Fabrice; Villa, Pierre.

PD November 1997. **TI** Cycles de Production Industrielle: Une Analyse Historique Dans le Domaine des Frequences. **AA** CEPII. **SR** CEPII Working Paper: 97/16; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 28. **PR** Free. **JE** C60, C82, E32, N10. **KW** Fractional Integration. Long-Run Memory. Industrial Output. Business Cycles.

AB Studies about production cycles have been developed in recent years by using the Hodrik and Prescott filter. This paper suggests another method, which takes into account long-run memory. The authors begin by calculating, with surveys, long-run monthly data about industrial production and the rate of unemployment in France since the beginning of the century. Then they propose to filter them by the Holt and Winters method to deseasonalize them. Then they filter them by the Geweke- Porter-Husak method to take into account the long-run memory trend, which corresponds to a fractional degree of integration. The authors use for this the inverse Fourier transform. Lastly, using a Box-Jenkins method, they estimate the fluctuations, which are measured by the discrepancies between the series which are deseasonalized by Holt and Winters and the long-run memory trend which is measured by the inverse Fourier transform. The whole method is close to a ARFIMA estimation method.

PD August 1998. **TI** Evolution Sur Longue Periodes de l'Intensite Energetique. **AA** CEPII. **SR** CEPII Working Paper: 98/08; Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), 9, rue Georges Pitard, 75740 Paris cedex 15, France. Website: www.cepii.fr/docw.htm. **PG** 72. **PR** Free. **JE** C80, N70, O33, Q40. **KW** Energy Usage. Energy Demand. Activity Effect. Intensity Effect. Technological Change.

AB According to historical studies, the average intensity of energy usage decreased along the century in developed countries after having reached a maximum. The curve of these maxima is the "real" curve of the world technical progress. After these maxima the decrease of the intensity of energy use expresses the trend of the technical progress. This paper first gives a survey of the literature regarding the evolution of the long-term energy use and of the econometric methodology generally used to forecast the long-term intensity of energy. Then it gives the results of estimations calculated for France, using corrections model technique to distinguish between short- and long-term effects, in order to explain, in the French case, which were the factors explaining the energy demand before and after World War two.

Vohra, Rajiv

TI Efficiency in an Economy with Fixed Costs: A Sequential Approach. **AU** Dall'Olio, Andrea; Vohra, Rajiv.

TI Coalition Power and Public Goods. **AU** Ray, Debraj; Vohra, Rajiv.

TI On the Impossibility of Implementation Under Incomplete Information. **AU** Serrano, Roberto; Vohra, Rajiv.

TI Bargaining and Bargaining Sets. **AU** Serrano, Roberto; Vohra, Rajiv.

Voith, Richard

TI Measuring Housing Services Inflation. **AU** Crone, Theodore M.; Nakamura, Leonard I.; Voith, Richard.

PD December 1999. **TI** Does the U.S. Tax Treatment of Housing Create An Incentive for Exclusionary Zoning and Increased Decentralization? **AA** Federal Reserve Bank of Philadelphia. **SR** Federal Reserve Bank of Philadelphia Research Working Paper: 99/22; Working Papers, Department of Research, Federal Reserve Bank of Philadelphia, 101 Independence Mall, Philadelphia, PA 19106. Website:

www.phil.frb.org/econ/index.html. **PG** 29. **PR** no charge except overseas airmail, $3.00; checks/money orders in U.S. funds payable to Federal Reserve Bank of Philadelphia. **JE** H24, R12, R14, R20, R52. **KW** Housing Taxation. Urban Economics. Metropolitan Development. Zoning. Land Prices.

AB The purpose of this paper is to provide a new framework to analyze the potential role of the federal tax treatment of housing in the patterns of metropolitan development. Following the work of Voith and Gyourko (1998), the authors develop an equilibrium model of two communities, one of which has fixed boundaries while the other community does not. Within this framework, the authors examine the residential choices of high and low income individuals with and without zoning constraints. They evaluate the relative profitability of communities choosing exclusionary zoning or not by comparing the aggregate land values under both regimes. The authors show that housing-related tax incentives are likely to create incentives for suburban communities to enact exclusionary zoning. Exclusionary zoning reinforces the marginal effects on decentralization and sorting that result from the tax code's effects on individuals' choices regarding land consumption and residential location.

Volij, Oscar

TI Public Education, Communities, and Vouchers. **AU** Luengo-Prado, Maria J.; Volij, Oscar.

PD March 1999. **TI** Utility Evidence in Sealed Bid Auctions and the Dual Theory of Choice Under Risk. **AA** Brown University. **SR** Brown University Department of Economics Working Paper: 99/08; Department of Economics, Box B, Brown University, Providence, RI 02912. **PG** 24. **PR** no charge. **JE** D44, D81. **KW** Utility Equivalence. Sealed Bid Auctions. Dual Theory. Choice Under Risk.

AB This paper analyzes symmetric, single item auctions in the private values framework, with buyers whose preferences satisfy the axioms of Yaari's (1987) dual theory of choice under risk. It is shown that when their valuations are independently and identically distributed, buyers are indifferent among all the auctions contained in a big family of mechanisms that includes the standard auctions. It is also shown that in the linear equilibria of the sealed bid double auction, as the degree of players' risk aversion grows arbitrarily large, the ex post inefficiency of the mechanism tends to vanish.

Von Hagen, Jurgen

TI Macroeconomic Policy and Institutions During the Transition to European Union Membership. **AU** Branson, William H.; de Macedo, Jorge Braga; Von Hagen, Jurgen.

Wachtel, Paul

TI Current Account Sustainability in Transition Economies. **AU** Roubini, Nouriel; Wachtel, Paul.

TI Lessons from Bank Privatization in Central Europe. **AU** Bonin, John; Wachtel, Paul.

PD August 1999. **TI** Market Oriented Banking, Economic Growth and International Financial Stability. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/30; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 14. **PR** $5.00 each; $100.00 yearly subscription. **JE** E44, E58, F36, G21, G28. **KW** Banking. International Finance. Financial Crises. Regulation. Financial Institutions.

AB The theme of this paper is that sound domestic financial institutions will reduce the moral hazards and enhance the stability of the international financial system. The authors begin by discussing the structure of banking systems and the elements of market oriented and sound banking systems. The next section of the paper describes three elements of a sound banking system: (1) Independence with or without private ownership; (2) Competition or at least contestability; (3) Credible and effective regulation. The section that follows discusses the causes of recent international financial crises. The authors identify the new fundamental determinants of international crises, all of which relate to the health of the domestic financial sector. Recent events suggest that these are more important than the traditional macro indicators of crisis, contagion effects or the inadequacies of the international financial system.

Wagner, Joachim

TI Export Entry and Exit by German Firms. **AU** Bernard, Andrew B.; Wagner, Joachim.

Wahba, Sadek

TI Causal Effects in Non-Experimental Studies: Re-Evaluating the Evaluation of Training Programs. **AU** Dehejia, Rajeev H.; Wahba, Sadek.

Waldfogel, Joel

TI The Effect of Price Advertising on Prices: Evidence in the Wake of 44 Liquormart. **AU** Milyo, Jeffrey; Waldfogel, Joel.

Walter, Ingo

PD March 1999. **TI** Financial Services Strategies in the Euro-Zone. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/16; Salomon Center, Stern School of Business, New York University, 44 West 4th Street, Suite 9-160, New York, NY 10012-1126. Website: www.stern.nyu.edu/salomon. **PG** 19. **PR** $5.00 each; $100.00 yearly subscription. **JE** F33, G21, G24, G38, O52. **KW** Euro. European Union. Banking. Insurance. Financial Intermediaries.

AB The euro's launching at the beginning of 1999 will accelerate reconfiguration of the financial intermediation process in Europe with dramatic consequences for commercial banking, investment banking, insurance and asset management functions. Banks, insurance companies and other financial intermediaries face strategic choices. This paper begins with a series of suppositions -- essentially maximum-likelihood state-variables relating to financial system conditions in the euro-zone, assuming a five-year time horizon -- that set the framework for a discussion of strategic positioning and implementation on the part of financial services firms expecting to compete successfully in the euro- zone. The authors focus on the institutional microstructure of the financial intermediation process and the determinants of competitive performance. This is followed by an assessment of strategic options facing euro-zone financial firms, and alternative institutional outcomes from the perspective of efficiency and stability of the euro-zone financial system. Where appropriate, comparisons are drawn with the U.S. financial system.

Wang, Jian-Ye

PD May 1999. **TI** The Georgian Hyperinflation and Stabilization. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/99/65; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 32. **PR** not available. **JE** E31, E63, E65, F31, F41. **KW** Hyperinflation. Stabilization. Exchange Rates. Credibility. Growth.

AB This paper analyzes the Georgian hyperinflation of 1993-94, which featured endogenous fiscal expenditures and the money supply, depreciation, and currency substitution. Hyperinflation was stopped by removing generalized consumer subsidies and tightening of monetary policy, and not by a sudden rush of credibility or imposition of an exchange rate anchor. A de facto exchange rate anchor served ex post as a vehicle for building credibility, which ensured a dramatic reversal of currency substitution when the currency reform was implemented. The paper also discusses the relatively rapid output recovery in Georgia.

Wascher, William

TI The Effects of Minimum Wages on the Distribution of Family Incomes: A Non-Parametric Analysis. **AU** Neumark, David; Schweitzer, Mark; Wascher, William.

Watson, Mark W.

TI Business Cycle Fluctuations in U.S. Macroeconomic Time Series. **AU** Stock, James H.; Watson, Mark W.

TI A Comparison of Linear and Nonlinear Univariate Models for Forecasting. **AU** Stock, James H.; Watson, Mark W.

Wauthy, Xavier

TI European Antidumping Policy and Firms Strategic Choice of Quality. **AU** Vandenbussche, Hylke; Wauthy, Xavier.

TI Relaxing Bertrand Competition: Capacity Commitment Beats Quality Differentiation. **AU** Boccard, Nicolas; Wauthy, Xavier.

Weidmann, Jens

TI Does Mother Nature Corrupt? Natural Resources, Corruption, and Economic Growth. **AU** Leite, Carlos; Weidmann, Jens.

Weismantel, Robert

TI Cutting Planes in Integer and Mixed Integer Programming. **AU** Marchand, Huges; Martin, Alexander; Weismantel, Robert; Wolsey, Laurence.

TI Cutting Planes in Integer and Mixed Integer Programming. **AU** Marchand, Huges; Martin, Alexander; Weismantel, Robert; Wolsey, Laurence.

Weiss, Allan N.

TI Moral Hazard in Home Equity Conversion. **AU** Shiller, Robert J.; Weiss, Allan N.

Weiss, Yoram

PD August 1999. **TI** Immigration, Search and Loss of Skill. **AU** Weiss, Yoram; Sauer, Robert M.; Gotibovski, Menachem. **AA** Weiss: Tel-Aviv University. Sauer: The Hebrew University of Jerusalem. Gotibovski: Academic College of Tel-Aviv-Yaffo. **SR** Tel Aviv Foerder Institute for Economic Research and Sackler Institute for Economic Research Working Paper: 26/99; The Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978, Israel. Website: econ.tau.ac.il. **PG** 49. **PR** no charge. **JE** C33, J31, J44, J61. **KW** Immigration. Skills. Search. Earning-Loss.

AB This paper analyzes the process of entry into the Israeli labor market among a panel of highly skilled immigrants who moved from the former USSR to Israel. The authors estimate a non-stationary, finite horizon search model with exogenous wage growth that captures the main features of this process; speedy entry into the labor force, an initial phase of work at low skill occupations, gradual occupational upgrading and a sharp increase in wages. The estimated parameters of the model, together with information on the wages of immigrants from earlier waves, are used to predict an occupational path and associated wages, for each new immigrant, from the time of arrival until retirement. The predicted lifetime earnings are compared to the hypothetical lifetime earnings immigrants would have received had their imported observable skills been valued in the same way as comparable Israelis. According to the results, on average, immigrants can expect lifetime earnings to fall short of the lifetime earnings of comparable Israelis by 42.6 percent. Of this figure, 8.3 percentage points reflect frictions associated with unemployment and occupational mismatch and 34.3 percentage points reflect the gradual adaptation of imported schooling and experience to the local labor market.

TI The Integration of Immigrants from the Former Soviet Union in the Israeli Labor Market. **AU** Eckstein, Zvi; Weiss, Yoram

Wennberg, John E.

TI How Much is Enough? Efficiency and Medicare Spending in the Last Six Months of Life. **AU** Skinner, Jonathan; Wennberg, John E.

Wettstein, David

TI Bidding for the Surplus: A Non-Cooperative Approach to the Shapley Value. **AU** Perez-Castrillo, David; Wettstein, David.

Whalley, John

TI The Value of MFN Treatment. **AU** Ghosh, Madanmohan; Perroni, Carlo; Whalley, John.

TI Endogenous Effort and Intersectoral Labour Transfers Under Industrialization. **AU** Ghosh, Madanmohan; Whalley, John.

Whelan, Karl

PD April 1999. **TI** Tax Incentives, Material Inputs, and the Supply Curve for Capital Equipment. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/21; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 31. **PR** no charge. **JE** E22, G31, H25. **KW** Investment. Tax Incentives. Equipment Investment. Supply Curves. Business Taxes.

AB The slope of the supply curve for capital equipment has important implications for the macroeconomics of investment and the effects of tax reform on capital accumulation. Goolsbee (1998) has used changes in investment tax incentives to identify whether this supply curve is significantly upward-sloping and has concluded that it is. This paper shows that investment tax incentives are a poor instrument for identifying this supply curve because they are spuriously correlated with supply shocks for equipment producers. Once input costs for equipment producers are controlled for, there is no evidence of a relationship between tax incentives and equipment prices. In fact, the evidence favors a flat supply curve interpretation.

Wieland, Volker

TI Robustness of Simple Monetary Policy Rules under Model Uncertainty. **AU** Levin, Andrew; Wieland, Volker; Williams, John C.

Wihlborg, Clas

TI The Dynamics of Capital Structure. **AU** Banerjee, Saugata; Heshmati, Almas; Wihlborg, Clas.

TI Corporate Insolvency Procedures and Bank Behavior: A Study of Selected Asian Economies. **AU** Hussain, Qaizar; Wihlborg, Clas.

Williams, John C.

TI Robustness of Simple Monetary Policy Rules under Model Uncertainty. **AU** Levin, Andrew; Wieland, Volker; Williams, John C.

Williams, Robert C., III

TI The Cost-Effectiveness of Alternative Instruments for Environmental Protection in a Second-Best Setting. **AU** Goulder, Lawrence H.; Parry, Ian W. H.; Williams, Robert C., III; Burtraw, Dallas.

TI The Cost-Effectiveness of Alternative Instruments for Environmental Protection in a Second-Best Setting. **AU** Goulder, Lawrence H.; Parry, Ian W. H.; Williams, Robert C., III; Burtraw, Dallas.

Wilson, Beth Anne

PD April 1999. **TI** Wage Rigidity: A Look Inside the Firm. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series: 99/22; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 28. **PR** no charge. **JE** E24, J31. **KW** Nominal Wage Rigidity. Wages. Services.

AB This paper tests for nominal salary rigidity using panel data from two large service-sector firms. Distributions of the firms' salary changes exhibit nominal rigidity: few nominal pay cuts, a pile-up of observations at zero, and positive skewness and asymmetry. In addition, these characteristics become more pronounced in periods of low inflation. These results are much stronger than those found in the previous literature. Further analysis shows that the sizable measurement error in the PSID and the fact that establishment surveys typically follow average wages within jobs may bias the results in the previous literature toward rejecting downward nominal wage rigidity.

TI Downward Nominal Wage Rigidity: Evidence from the Employment Cost Index. **AU** Lebow, David E.; Saks, Raven E.; Wilson, Beth Anne.

Winston, Tor

TI A New Model of Quality. **AU** Krishna, Kala; Winston, Tor.

Wintrobe, Ronald

PD March 1998. **TI** Privatization, The Market For Corporate Control, And Capital Flight From Russia. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9804; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 13. **PR** $10.00 Canadian per paper. **JE** F21, F32, G32, G38, L33. **KW** Privatization. Corporate Control. Capital Flight. Transition Economies. Russia.

AB There seems to be a general consensus that some of capital has left Russia, and that investing in Russia is insufficiently attractive either to domestic or foreign investors to motivate domestic investors to return or foreign investors to enter at a sufficient level to adequately finance the development of the Russian economy. This paper will argue that the basic reason for the flight of capital over the last few years is the neglect, during the transition, of property rights issues, and in particular of the property rights environment necessary to ensure adequate corporate governance and the resulting "incomplete" ownership structure typical of the Russian firm. Emphasis during transition was on privatization. Little attention was paid to how to design appropriate institutions to ensure the transferability of ownership and how to discipline managers so that they would manage corporations in such a way as to breed investor confidence.

Witte, Ann Dryden

TI Effects of Information Provision in a Vertically Differentiated Market. **AU** Chipty, Tasneem; Witte, Ann Dryden.

Woeginger, Gerhard J.

TI A PTA'S For Minimizing the Total Weighted Completion Time on Identical Parallel Machines. **AU** Skutella, Martin; Woeginger, Gerhard J.

Wolf, Holger

TI Thresholds and Context Dependence in Growth. **AU** Ghosh, Atish R.; Wolf, Holger.

Wolken, John D.

TI Competition, Small Business Financing, and Discrimination: Evidence from a New Survey. **AU** Cavalluzzo, Ken; Cavalluzzo, Linda; Wolken, John D.

Wolsey, Laurence A.

TI The Uncapacitated Lot-Sizing Problem With Sales and Safety Stocks. **AU** Loparic, Marko; Pochet, Yves; Wolsey, Laurence A.

Wonnacott, Paul

PD October 1999. **TI** An Economic Theory of the GATT:

A Generalization. **AU** Wonnacott, Paul; Wonnacott, Ronald J. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9909; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 5. **PR** $10.00 Canadian per paper. **JE** F13, F42. **KW** Trade. Protection. Tariffs. Trade Agreements. GATT.

AB Bagwell and Staiger (1999) conclude that the only reason for governments to enter a trade negotiation is the terms-of-trade externality, which creates an inefficiency in unilateral trade policies. To address this conclusion, the authors consider that protection may be motivated by many other objectives than just unilateral attempts at terms-of-trade improvements, including the desire to: (1) increase incomes (or prevent trade-driven losses) in import-competing countries; (2) increase employment; (3) improve the balance of trade. It may or may not be sensible for countries to increase tariffs for any of these reasons, but they do. In each case, trade agreements may be appealing to governments as a way to prevent an inefficiency that arises from unilateral trade policies. The justification for the GATT is that it restrains unilateral protection, regardless of its political or economic motivation. Moreover, this conclusion holds even if each country has a different motive for protection.

Wonnacott, Ronald J.

TI An Economic Theory of the GATT: A Generalization. **AU** Wonnacott, Paul; Wonnacott, Ronald J.

Woo, Wing T.

TI The U.S.-China Bilateral Trade Balance: Its Size and Determinants. **AU** Feenstra, Robert C.; Hai, Wen; Woo, Wing T.; Yao, Shunli.

Wrase, Jeffrey

TI Exchange Rates, Monetary Policy Regimes, and Beliefs. **AU** Sill, Keith; Wrase, Jeffrey.

TI Exchange Rates and Monetary Policy Regimes in Canada and the U.S. **AU** Sill, Keith; Wrase, Jeffrey.

TI Solving and Simulating a Simple Open-Economy Model with Markov- Switching Driving Processes and Rational Learning. **AU** Sill, Keith; Wrase, Jeffrey.

TI Schumpeterian Growth and Endogenous Business Cycles. **AU** Phillips, Kerk; Wrase, Jeffrey.

Wright, Brian D.

TI Sovereign Debts as Intertemporal Barter. **AU** Kletzer, Kenneth M.; Wright, Brian D.

Wu, Lisa

TI Output Fluctuations and Fiscal Policy: U.S. State and Local Governments 1978-1994. **AU** Sorensen, Bent E.; Wu, Lisa; Yosha, Oved.

Yang, Jian

PD September 1998. **TI** Semiparametric Maximum Likelihood Estimation of GARCH Models. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Reports/TERF Reports: 9816; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, Canada N6A 5C2. Website: yoda.sscl.uwo.ca:80/economics. **PG** 28. **PR** $10.00 Canadian per paper. **JE** C13, C14. **KW** GARCH Models. Adaptive Estimation. Semiparametric Estimation.

AB We consider a semiparametric GARCH model where the functional form for the conditional density of the errors is unknown. Adaptive conditions of the parameters are examined. Semiparametric Maximum Likelihood (SML) estimators are constructed by maximizing the nonparametric pseudo log-likelihood function computed using the residuals from initial square root n-consistent estimates. SML estimators are shown to be adaptive for the adaptively estimable parameters and consistent for all identifiable parameters. Monte Carlo results suggest that SML estimators outperform quasi maximum likelihood estimators and the adaptive maximum likelihood estimators in finite samples.

Yao, Shunli

TI The U.S.-China Bilateral Trade Balance: Its Size and Determinants. **AU** Feenstra, Robert C.; Hai, Wen; Woo, Wing T.; Yao, Shunli.

Yashiv, Eran

TI A Macroeconomic Experiment in Mass Immigration. **AU** Hercowitz, Zvi; Yashiv, Eran.

Yazici, Esel Y.

PD April 1998. **TI** Medicaid Expansions and the Crowding Out of Private Health Insurance. **AU** Yazici, Esel Y.; Kaestner, Robert. **AA** Yazici: Bain, Cuneo and Associates. Kaestner: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 6527; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. Website: www.nber.org. **PG** 19. **PR** $5.00. **JE** H42, I18, I38, J13. **KW** Medicaid. Crowd Out. Children. Eligibility Expansion.

AB In this paper, we re-examine the question of crowd out among children. Our primary contribution is the use of longitudinal data. These data allow us to identify several groups of children depending on whether their eligibility for Medicaid was affected by the eligibility expansions, and to investigate whether changes in insurance coverage of children affected by the expansions differed from changes in insurance coverage of children unaffected by the expansions. For example, we directly measure whether children who became eligible for Medicaid due to the expansions decreased their enrollment in private insurance plans faster than children whose eligibility for Medicaid was unaffected by the expansions. Our results suggest that there was relatively little crowd out among children. We estimate that 14.5 percent of the recent increase in Medicaid enrollment came from private insurance.

Yeyati, Eduardo Levy

PD July 1999. **TI** Global Moral Hazard, Capital Account Liberalization and the "Overlending Syndrome" **AA** Universidad Torcuato di Tella. **SR** International Monetary Fund Working Paper: WP/99/100; International Monetary Fund, 700 19th Street, Washington, DC 20431. Website:www.imf.org. **PG** 21. **PR** not available. **JE** D82, F32, F34, G21, G28. **KW** Banking Crises. Capital

Flows. Liberalization. Deposit Insurance. Moral Hazard.
AB The removal of government guarantees in borrowing countries does not eliminate the moral hazard problem posed by the existence of deposit guarantees in lender countries. The paper shows that, after restrictions on international capital flows are lifted, banks in low-risk developed countries benefit from lending funds captured in home markets at low deposit rates to high-risk/high-yield projects in emerging economies, even though these projects command lower expected returns. This, in turn, has a negative impact on bank profitability in the borrowing country, even when foreign funds are intermediated through domestic banks. The results are consistent with the surge in international bank lending flows that led to recent banking crises in Asia.

TI Bank Bailouts: Moral Hazard vs. Value Effect. **AU** Cordella, Tito; Yeyati, Eduardo Levy.

Yosha, Oved

TI Risk Sharing and Industrial Specialization: Regional and International Evidence. **AU** Kalemli-Ozcan, Sebnem; Sorensen, Bent E.; Yosha, Oved.

TI Risk Sharing and Industrial Specialization: Regional and International Evidence. **AU** Kalemli-Ozcan, Sebnem; Sorensen, Bent E.; Yosha, Oved.

TI Output Fluctuations and Fiscal Policy: U.S. State and Local Governments 1978-1994. **AU** Sorensen, Bent E.; Wu, Lisa; Yosha, Oved.

TI Financial Liberalization and Competition in Banking: An Empirical Investigation. **AU** Ribon, Sigal; Yosha, Oved.

Yuen, Chi-Wa

TI Excessive FDI Flows Under Asymmetric Information. **AU** Razin, Assaf; Sadka, Efraim; Yuen, Chi-Wa.

Zeira, Joseph

TI Finance and Growth: Theory and New Evidence. **AU** Harrison, Paul; Sussman, Oren; Zeira, Joseph.

Zemsky, Peter

TI Mentoring and Diversity. **AU** Athey, Susan; Avery, Christopher; Zemsky, Peter.

Zenou, Yves

TI On the Existence of Spatial Monopolies Under Free Entry. **AU** Steinmetz, Sebastien; Zenou, Yves.

PD January 1999. **TI** Agglomeration Economies in European and American Cities. **AA** Universite du Maine. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9902; Center for Operations Research and Econometrics, Universite Catholique de Louvain, 34 Voi du Roman Pays, 1348 Louvain-la-Neuve, Belgium. Website: www.core.ucl.ac.be/dp.html. **PG** 25. **PR** $100 per year. **JE** J64, R14, R23, R30. **KW** Endogenous Location. Worker Location. Location of Amenities. Urban Unemployment.
AB We consider two types of cities. In the European one the amenities are located at the city-center (like e.g. Paris or London) whereas in the American-type city the amenities are at the city-edge (like e.g. Detroit, Los Angeles). We first show that the unemployed reside at the vicinity of the city-center in the American-type city while they locate at the outskirts of the city in the European one. We then establish conditions for the endogenous formation of monocentric European and American cities and compare them. It turns out that the employed workers are better off in European cities whereas the unemployed and firms are worse off, that land rent is cheaper in American cities and that the number of trips devoted to amenities and to work affect differently workers' utilities and firms' profits in the two cities.

TI Racial Discrimination and Redlining in Cities. **AU** Boccard, Nicolas; Zenou, Yves.

Zilcha, Itzhak

TI Optimal Education When Capital Markets are Integrated. **AU** Viaene, Jean Marie; Zilcha, Itzhak.

TI Incomplete Risk Sharing Arrangements and the Value of Information. **AU** Eckwert, Bernhard; Zilcha, Itzhak.

TI The Choice of Acquiring Medical Information in Life Insurance Markets. **AU** Sulganik, Eyal; Zilcha, Itzhak.

Zilibotti, Fabrizio

TI TFP Differences. **AU** Acemoglu, Daron; Zilibotti, Fabrizio.