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).

Abbink, Klaus

PD July 1996. **TI** An Experimental Investigation of the Option Pricing Approach. **AU** Abbink, Klaus; Kuon, Bettina. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/376; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 26. **PR** no charge. **JE** C91, G12, G13, G14. **KW** Experiments. Option Pricing. Arbitrage. Bounded Rationality.

AB The paper reports a basic experiment on the option pricing approach. Each trader with an increasing utility for money values the option with its arbitrage free price, which is independent of the probability of the stock movement. The experimental data show that the traders learn to exploit more arbitrage as they gain experience, however, they value the option by a probability dependent price. This price can best be described by the discounted expected payoff of the option, damped for high probability values. Nevertheless, there are hints for a learning towards the arbitrage free price, driven by the expected payoff maximization.

PD July 1996. **TI** Adaptive Learning versus Punishment in Ultimatum Bargaining. **AU** Abbink, Klaus; Bolton, Gary E.; Sadrieh, Abdolkarim; Tang, Fang-Fang. **AA** Abbink, Sadrieh, and Tang: University of Bonn. Bolton: Penn State University. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/381; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 17. **PR** no charge. **JE** C72, C78, C91, D83. **KW** Ultimatum Bargaining. Learning. Fairness. Reciprocity. Game Theory.

AB Adaptive learning and punishment are highly prominent competing explanations for ultimatum game behavior. We report on an experiment that considers each theory in stand-alone form, so that one does not rely on the other in any substantial way. Our data exhibits patterns for which punishment can account but learning by itself cannot. Initial play varies substantially -- and systematically -- across variations on the ultimatum game, and this leads to differences in later play as well. Hence a complete theory of ultimatum game behavior will have to predict initial conditions as well as describe the influence of repeated play.

PD September 1997. **TI** RatImage 3.30. Updating Addendum to the Research Assistance Toolbox for Computer-Aided Human Behavior Experiments. **AU** Abbink, Klaus; Sadrieh, Abdolkarim. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/417; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 25. **PR** no charge. **JE** C81, C88, C91, C92, C99. **KW** Experiments. Experimental Economics. Computerized Experiments. Software Tools.

AB This paper reports on RatImage, version 3.30. The extended features are presented. RatImage 3.30 is fully downward compatible to the first published version of Research Assistance Toolbox for Computer-Aided Human Behavior Experiments, RatImage 3.10. This paper is an addendum to the manual of RatImage 3.10.

PD October 1997. **TI** The Moonlighting Game. **AU** Abbink, Klaus; Irlenbusch, Bernd; Renner, Elke. **AA** Abbink and Bernd: University of Bonn. Renner: Otto-Beisheim- Hochschule, WHU. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/415; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 21. **PR** no charge. **JE** C78, C91, D63, J41, K42. **KW** Reciprocity. Retribution. Fairness. Non-Binding Contracts. Cognitive Dissonance.

AB We introduce the moonlighting game. Player A can take money from or pass money to player B, who can either return money or punish player A. One-shot experiments were performed on this game. Treatments were conducted with and without making non-binding agreements beforehand. The results refute the concept of rationality and support the impact of reciprocity and retribution, where retribution is more compelling than reciprocity. The equal division principle is the dominant fairness norm. Deviating norms are not a product of not knowing which norm to apply, but rather to avoid cognitive dissonance in advance.

Abrams, Burton A.

PD August 1997. **TI** Women's Suffrage and the Growth of the Welfare State. **AU** Abrams, Burton A.; Settle, Russell F. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 97/08; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 15. **PR** no charge. **JE** D72, H53, I38. **KW** Welfare State. Voting Franchise. Women's Suffrage. Switzerland.

AB In this paper we test the hypothesis that extensions of the voting franchise to include lower income people lead to growth in government, especially growth in redistribution expenditures. The empirical analysis takes advantage of the natural experiment provided by Switzerland's extension of the franchise to women in 1971. Women's suffrage represents an institutional change with potentially significant implications for the positioning of the decisive voter. For various reasons, the

decisive voter is more likely to favor increases in governmental social welfare spending following the enfranchisement of women. Evidence indicates that this extension of voting rights increased Swiss social welfare spending by 28 percent and increased the overall size of the Swiss government.

Abul Naga, Ramses H.

PD August 1998. **TI** Estimating the Intergenerational Correlation of Incomes: An Errors in Variables Framework. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9812; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 15. **PR** no charge. **JE** D91, I30, J62. **KW** Intergenerational Mobility. Measurement Error. Permanent Income.

AB The estimation of the intergenerational correlation of incomes is usually carried out by proxying permanent incomes using suitable indicators of economic status, and by treating the resulting measurement error problem using averaging or instrumenting procedures. Here we take the permanent income of the parents' family to be unobserved, but we assume that its determinants are known to the researcher. A two-stage procedure as well as a MIMIC type covariance estimator applied to a U.S. sample of parents and children entails estimates of the order of 0.61 to 0.64 for the coefficient of intergenerational income transmission. OLS estimates this parameter at 0.5. The variance ratio of permanent to total income is also estimated to be in the range of 0.77 to 0.8, implying a correction factor of 1.25 to 1.3 for OLS estimates.

Ackermann, Michael B. E.

PD April 1998. **TI** The Time Optimal Transition of Eastern Germany's Productivity. **AU** Ackermann, Michael B. E.; Christopeit, Norbert. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/430; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 15. **PR** no charge. **JE** C61, E13, E61, H21, O41. **KW** Transition. East Germany. Productivity. Development. Taxation.

AB The purpose of this paper is the development of an optimal solidarity tax policy. The optimal policy is understood as that policy which moves GNP of both parts of Germany to the steady-state growth path in minimal time. This means that the optimal policy minimizes the time required to achieve equal standards of living in both parts. The framework for this attempt is a neoclassical growth model, and the solution will be derived by means of optimal control theory. Section two starts with the presentation of the growth model, develops a simple tax policy and introduces the allocation parameter, introduced by Rahman (1963, 1966) and Intrilligator (1965), which controls the allocation of the tax revenue to the two countries. In the next section the resulting control problem is solved by exhibiting a policy satisfying the sufficient optimality conditions. The last section shows some policy implications and summarizes the results.

Adda, Jerome

PD March 1998. **TI** Borrowing With Unobserved Liquidity Constraints: Structural Estimation With An Application to Sovereign Debt. **AU** Adda, Jerome; Eaton, Jonathan. **AA** Adda: CEPREMAP and INRA. Eaton: Boston University and National Bureau of Economic Research. **SR** CEPREMAP Discussion Paper: 9806; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 39. **PR** between 25-35 francs. **JE** F34. **KW** Liquidity Constraints. Debt Crisis. Estimation. Credit Ceilings.

AB We develop a framework for estimating the optimal expenditure of agents subject to unobserved liquidity constraints. Our framework allows us to estimate credit ceilings as well as preference parameters. We apply the framework to data on net resource transfers from private lenders to twenty-nine sovereign debtors during 1973-1993. We obtain reasonable estimates of the discount factor, elasticity of marginal utility of expenditure, and the credit ceiling for most countries. Our estimated credit ceilings rise quite regularly with income across the countries of our sample, and are positively associated with a country's trade, in line with several theoretical arguments. Our estimates imply that slightly less than half the countries in our sample were liquidity constrained during the 1970's. The fraction rose to around 80 percent in the mid 1980's, and subsequently declined.

Aghion, Philippe

PD July 1998. **TI** Financial Liberalization and Volatility in Emerging Market Economies. **AU** Aghion, Philippe; Bacchetta, Philippe; Banerjee, Abhijit. **AA** Aghion: University College London and EBRD. Bacchetta: Studienzentrum, Gerzensee and University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9811; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 25. **PR** no charge. **JE** E32, E44, F23, F32, F41. **KW** Emerging Markets. Volatility. Financial Liberalization. Currency Crises.

AB The recent East Asian crises has highlighted the relationship between financial development and output volatility. In this essay we develop a simple model of a small open economy producing a tradable good using a non-tradable input and where firms' access to borrowings and investment depends on current cash flows. We then show, first that macroeconomic volatility only occurs at intermediate levels of financial development; second, that whilst full financial liberalization, including an unrestricted opening to foreign lending, can destabilize an emerging market economy, in contrast output volatility can be avoided if the same economy opens up to foreign direct investment only. We also draw several policy conclusions regarding the adequate responses to financial crises.

PD January 1999. **TI** Competition, Entry, and the Social Returns to Infrastructure in Transition Economies. **AU** Aghion, Philippe; Schankerman, Mark. **AA** Aghion: Harvard and EBRD. Schankerman: London School of Economics and EBRD. **SR** Centre for Economic Policy Research Discussion Paper: 2052; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D23, H54, L10, O12, P21. **KW** Infrastructure. Competition. Entry. Transition. Transaction Costs.

AB This paper presents a simple model for analyzing the contribution of investments in physical and institutional

infrastructure to the transition process. In addition to the direct cost savings, infrastructure investment generates important indirect effects, or transition impacts. The model shows that, by reducing transaction costs, infrastructure intensifies product market competition. This leads to more effective weeding out of the existing high-cost firms in the market. In this model, infrastructure also increases the incentives for low-cost firms to restructure which generates additional efficiency gains, but exacerbates the existing cost asymmetry in the economy. Finally, infrastructure investment enhances the incentives for relatively low-cost firms to enter the market, and thus improves the efficiency of the entry process. The importance of these transition impacts of infrastructure depends on features of the economy, such as the degree of cost asymmetry among firms, the proportion of high-cost firms, the cost of restructuring, and entry costs.

Agnello, Richard J.

PD May 1999. **TI** Investment Returns and Risk for Art: Evidence from Auctions of American Paintings (1971-1996). **AU** Agnello, Richard J.; Pierce, Renee K. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 99/03; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 17. **PR** no charge. **JE** D81, G12, L82, Z11. **KW** Returns. Risk. Art. Painting Characteristics.

AB Research on art markets has generally found low rates of returns accompanied by high risk. This paper investigates whether past findings hold when analyses are disaggregated by artist, genre, and quality. Data on over 25,000 paintings by U.S. artists sold at auction from 1971 to 1996 are used to estimate a hedonic log price model with dummy variables reflecting temporal variation. A price index and shadow values for painting characteristics are simultaneously estimated. The findings show price indices rising through the 1980's, falling sharply, and recently rising but generally not to previous peaks. However, there is much sensitivity to the particular disaggregated segment in returns, risk, and the consumption cost. Overall returns to holding paintings are substantially lower than equity markets, with higher risk, although some returns exceeded inflation. The findings indicate that for high quality paintings in general and certain artists and subject matters in particular, returns can be very high and not always offset by higher risk. This "superstar" effect may prove transitory once a new relative price equilibrium is reached. Picking the right artist or subject category can prove financially rewarding, although knowing the right ones ex post is not likely to be much help ex ante.

Agung, Juda

PD March 1998. **TI** Financial Development, Liberalisation and Economic Development in Indonesia, 1966 - 1996: Cointegration and Causality. **AU** Agung, Juda; Ford, J. L. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/12; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 31. **PR** 2 pounds ($4); no charge to academics. **JE** C22, E44, O16. **KW** Error Correction. Financial Development. Liberalization. Indonesia.

AB This paper considers the link between financial and economic development. It does so by using cointegration and error correction modeling (ECM). The test procedures used suggest that the structure of the relationships between those two forms of development did not differ over the pre- and post-liberalization periods. Insufficient data prevented a comprehensive test of that hypothesis. Cointegration is found between three of four measures of financial development and both real gross domestic product (GDP) per capita and real non-oil GDP per capita. The ECM equations indicated that only two measures of financial development (broad money and deposit banks' private sector credit to GDP) produced stable models. The latter suggest that for the whole sample period financial development causes economic development.

TI Incorporating Risky Assets in Divisia Monetary Aggregates. **AU** Drake, Leigh; Mullineux, Andy; Agung, Juda.

Aksoy, Yunus

TI The European Central Bank: Decision Rules and Macroeconomic Performance. **AU** De Grauwe, Paul; Dewachter, Hans; Aksoy, Yunus.

Alier, Max

PD April 1999. **TI** Nonrenewable Resources: A Case for Persistent Fiscal Surpluses. **AU** Alier, Max; Kaufman, Martin. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/44; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 14. **PR** not available. **JE** D91, E21, E62, Q38. **KW** Fiscal Policy. Nonrenewable Resources. Intergenerational Transfer. Overlapping Generations. Chile.

AB This paper examines whether there is a case for temporary but persistent fiscal surpluses in economies heavily endowed with nonrenewable resources. It finds that there generally is a case. Fiscal surpluses permit replacing non-financial wealth with financial assets, the return on which increases public consumption possibilities of future generations for a constant across-generation tax burden. The more biased are a government's preferences toward present generations, the lower will be the initial surpluses; the larger the finite endowment, the larger the initial surpluses. In a more general framework, including public investment, the proposition could be rephrased by replacing surpluses with stronger initial fiscal positions.

Aliprantis, C. D.

PD July 1999. **TI** Minimum-Cost Portfolio Insurance. **AU** Aliprantis, C. D.; Brown, D.; Werner, J. **AA** Aliprantis: Purdue University. Brown: Yale University. Werner: University of Minnesota. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/599; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 14. **PR** no charge. **JE** G11, G13. **KW** Portfolio Insurance. Derivative Markets. Lattice-Subspace. Contingent Pricing.

AB Minimum-cost portfolio insurance is an investment strategy that enables an investor to avoid losses while still capturing gains of a payoff of a portfolio at minimum cost. If derivative markets are complete, then holding a put option in conjunction with the reference portfolio provides minimum-cost insurance at arbitrary arbitrage-free security prices. We derive a characterization of incomplete derivative markets in

which the minimum-cost portfolio insurance is independent of arbitrage-free security prices. Our characterization relies on the theory of lattice-subspaces. We establish that a necessary and sufficient condition for price-independent minimum-cost portfolio insurance is that the asset span is a lattice-subspace of the space of contingent claims. If the asset span is a lattice-subspace, then the minimum-cost portfolio insurance can be easily calculated as a portfolio that replicates the targeted payoff in a subset of states which is the same for every reference portfolio.

Altman, Edward I.

TI Including Defaulted Bonds in the Capital Market Asset Spectrum. **AU** Reilly, Frank K.; Wright, David J.; Altman, Edward I.

PD January 1999. **TI** Special Report on the Market Size and Investment Performance of Defaulted Bonds and Bank Loans: 1987-1998. **AU** Altman, Edward I.; Beltran, Luis. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/09; 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** G11, G12, G13, G32, G34. **KW** Defaulted Securities. Bank Loans. Defaulted Debt. Market Size. Investment Performance.
AB This report presents results and discussion of the investment performance of those bonds and bank loans that have defaulted on their scheduled payments to creditors and continue trading in the public market while the issuing firm attempts a financial reorganization. Monthly total return measures are compiled based on the Altman-NYU Salomon Center Indexes of Defaulted Bonds and Defaulted Banks Loans, as well as an index that combines bonds and loans. These returns are compared to the total returns of common stocks and high yield corporate bonds. Returns are presented for the past year (1998) as well as the last twelve years for bonds and three years for bank loans. The authors continue to estimate the size of the distressed and defaulted debt markets in the United States. The authors will update their estimates of the size of the defaulted and distressed public and private debt markets with the latest estimates.

PD January 1999. **TI** Defaults and Returns on High Yield Bonds: Analysis Through 1998 and Default Outlook for 1999-2001. **AU** Altman, Edward I.; Cooke, Diane; Kishore, Vellore. **AA** Altman and Cooke: New York University. Kishore: Salomon Smith Barney. **SR** New York University, Salomon Center Working Paper: S/99/10; 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** G11, G12, G32, G34. **KW** High Yield Debt. Bonds. Default. Mortality Statistics. Average Returns.
AB This report documents the high yield debt market's risk and return performance by presenting default and mortality statistics and providing a matrix of average returns and other performance statistics over the relevant periods of the market's evolution. Our analysis covers the period 1971-1998 for defaults and 1978-1998 for returns. In addition, we present our annual forecast of expected defaults for the next three years (1999-2001). Two other reports, published by the NYU Salomon Center, comprehensively document the performance of defaulted public bonds and bank loans and the default rate experience on syndicated bank loans.

Amable, Bruno

PD 1998. **TI** Technical Change and Incorporated R&D in the Service Sector. **AU** Amable, Bruno; Palombarini, Stefano. **AA** Amable: INRA and CEPREMAP. Palombarini: CREA and CEPREMAP. **SR** CEPREMAP Discussion Paper: 9808; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 25. **PR** between 25-35 francs. **JE** L80, O31, O32, O33. **KW** Services. R&D Intensity. Incorporated Technology. Input-Output Tables.
AB The purpose of this article is to study the pattern of technical change in the service sector using an indicator of total technology intensity which takes account of the Research & Development incorporated in purchases of intermediates and equipment. The service sector does not appear homogeneous and some services are major users of technology. An international comparison over 8 countries does not show a clear pattern of convergence in total technology intensity except for the communication services. A comparison between France and Germany emphasizes the differences between the relative importance of domestic and imported incorporated technology.

PD 1998. **TI** Stability Versus Efficiency of the Banking Sector and Economic Growth. **AU** Amable, Bruno; Chatelain, Jean-Bernard; de Bandt, Oliver. **AA** Amable: INRA-LEA and CEPREMAP. Chatelain and Bandt: Banque de France. **SR** CEPREMAP Discussion Paper: 9811; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 22. **PR** between 25-35 francs. **JE** G21, G22, G28, O16. **KW** Financial Stability. Growth. Banking. Deposit Insurance.
AB The paper investigates, from the welfare and growth point of view, the existence of a trade-off between the stability and efficiency of the banking system, studying the costs and benefits of regulatory programs. Welfare is considered in the context of an overlapping generation model with endogenous growth. There is horizontal differentiation and imperfect competition in the banking sector. Macroeconomic shocks affect the return on capital. We specify how deposit insurance may increase the number of deposits, welfare, and growth. We characterize the conditions under which excess banking capacity may appear and how its reduction may improve welfare.

Amihud, Yakov

PD June 1998. **TI** An Institutional Innovation to Reduce the Agency Costs of Public Corporate Bonds. **AU** Amihud, Yakov; Garbade, Kenneth D.; Kahan, Marcel. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/98/33; 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** 19. **PR** $5.00 each; $100.00 yearly subscription. **JE** D82, G10, G20, G32, L14. **KW** Corporate Bonds. Contracts. Renegotiation. Public Debt. Agency Problems.
AB This paper proposes an innovation in the design of publicly registered corporate bonds that would focus responsibility for contract monitoring, renegotiation and enforcement on a single entity, which we call a supertrustee. The goal is to facilitate relatively inexpensive and non-

opportunistic renegotiation and enforcement of bond covenants, thus enabling public debt to have more and tighter covenants that better control the behavior of the firm without requiring that the firm sacrifice strategic flexibility. The result will be a reduction in the agency costs of public debt, in the same way that those costs are reduced in private lending, without impairing liquidity or diversifiability.

PD June 1998. **TI** Number of Shareholders and Stock Prices: Evidence from Japan. **AU** Amihud, Yakov; Mendelson, Haim; Uno, Jun. **AA** Amihud: New York University. Mendelson: Stanford University. Uno: Nikkei Quick Information Technology Co. Ltd. **SR** New York University, Salomon Center Working Paper: S/98/34; 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** G12, G32. **KW** Shareholders. Asset Pricing. Stock Prices. Liquidity. Japan.

AB Merton (1987) has proposed that an increase in the firm's investor base increases its value. In Japan, companies can reduce their stocks' minimum trading unit -- the number of shares in a "round lot" -- which facilitates trading the stock by small investors. We find that the reduction in the minimum trading unit greatly increases the firm's base of individual investors and its stock liquidity, and that it is associated with a significant increase in the stock price. Further, the stock price appreciation is positively related to the increase in the number of shareholders.

Anderson, James E.

PD December 1998. **TI** The Mercantilist Index of Trade Policy. **AU** Anderson, James E.; Neary, J. Peter. **AA** Anderson: Boston College. Neary: University College Dublin. **SR** Centre for Economic Policy Research Discussion Paper: 2044; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F13. **KW** International Trade. Tariffs. Quotas. Trade Restrictiveness. Trade Liberalization.

AB This paper develops and characterizes an index of trade policy restrictiveness defined as the uniform tariff equivalent which maintains the same volume of trade as a given set of tariffs, quotas, and domestic taxes and subsidies. We relate this volume-equivalent index to the Trade Restrictiveness Index, a welfare-equivalent measure, and relate changes in both indexes to changes in the generalized mean and variance of the tariff schedule. Applications to international cross-section and time-series comparisons of trade policy show that the new index frequently gives a very different picture than do standard indexes.

PD January 1999. **TI** The Mercantilist Index of Trade Policy. **AU** Anderson, James E.; Neary, J. Peter. **AA** Anderson: Boston College and NBER. Neary: University College Dublin and London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 413; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 23. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** F13. **KW** International Trade. Tariffs. Quotas. Restrictiveness Index.

AB See the abstract for James E. Anderson and Peter J. Neary, December 1998. "The Mercantilist Index of Trade Policy". Centre for Economic Policy Research, Discussion Papers: 2044; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org.

Andrews, Rick L.

TI Forecasting with Multi-Regime Structural Time Series Models: An Application to Nominal Interest Rates. **AU** Iyer, Sridhar; Andrews, Rick L.

Applegate, David

PD July 1998. **TI** On the Solution of Traveling Salesman Problems. **AU** Applegate, David; Bixby, Robert; Cook, William; Chvatal, Vasek. **AA** Applegate, Bixby and Cook: Rice University. Chvatal: Rutgers University. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98873; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 10. **PR** no charge. **JE** C44, C45, C60. **KW** Traveling Salesman Problem. Linear Programming. Combinatorial Optimization. Cutting Planes. Graphs.

AB Following the theoretical studies of J.B. Robinson and H.W. Kuhn in the late 1940's and the early 1950's, G.B. Dantzig, R. Fulkerson, and S.M. Johnson demonstrated in 1954, that large instances of the TSP could be solved by linear programming. Their approach remains the only known tool for solving TSP instances with more than several hundred cities; over the years, it has evolved further through the work of M. Grotschel, S. Hong, M. Junger, P. Miliotis, D. Naddef, M. Padberg, W.R. Pulleyblank, G. Reinelt, G. Rinaldi, and others. We enumerate some of its refinements that led to the solution of a 13,509-city instance.

PD 1999. **TI** Finding Tours in the TSP. **AU** Applegate, David; Bixby, Robert; Chvatal, Vasek; Cook, William. **AA** Applegate, Bixby, and Cook: Rice University. Chvatal: Rutgers University. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 99885; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 54. **PR** no charge. **JE** C44, C45, C60. **KW** Traveling Salesman Problem. Linear Programming. Combinatorial Optimization. Cutting Planes. Branch and Bound.

AB The traveling salesman problem, or TSP for short, is easy to state: given a finite number of "cities" along with the cost of travel between each pair of them, find the cheapest way of visiting all the cities and returning to your starting point. The travel costs are symmetrical in the sense that traveling from city X to city Y costs just as much as traveling from Y to X; the "way of visiting all the cities" is simply the order in which the cities are visited. In this report we consider the relaxed version of the TSP where we ask only for a tour of low cost. This is a preliminary version of a chapter of planned monograph on the TSP.

Archarya, Viral V.

PD December 1998. **TI** Contract Renegotiation and the Optimality of Resetting Executive Stock Options. **AU** Archarya, Viral V.; John, Kose; Sundaram, Rangarajan

K. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/03; 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** G13, J33, J41, J44. **KW** Stock Options. Compensation Packages. Contracts. Resetting Strike Prices.

AB Recent empirical work has documented the tendency of corporations to reset strike prices on previously-awarded executive stock option grants when declining stock prices have pushed these options out-of-the-money. This practice has been criticized as counter-productive since it weakens incentives present in the original award. This paper sets up a theoretical model for study of this issue. The authors find that when the menu of compensation contracts is unlimited, resetting cannot increase, and may actually reduce, shareholder value. In more realistic settings, however, when only commonly-observed compensation instruments may be used, the authors find that allowing for the possibility of resetting can, in fact, result in increased shareholder value. They also find that the relative importance of resetting may increase as the impact of external factors on the firm's performance increases. Finally, the authors analyze the relationship between the relative optimality of resetting and managerial control over returns generation.

Athreye, Suma

PD March 1998. **TI** On Markets in Knowledge. **AA** Manchester School of Management, UMIST UK. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 83; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 30. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D40, D80, L11, O31, O33. **KW** Knowledge Markets. Technological Change. Technological Convergence. Market Structure.

AB This paper considers the conditions which must be met in order for specialized markets in knowledge to emerge. The first is the alienation of knowledge from its context, which allows knowledge to become a commodifiable product that can be bought and sold and transferred thereafter to different users. The second is the establishment of a reasonable volume of exchange transactions in that commodified knowledge, which in return requires cross-sectoral application and horizontal integration. Institutional structures facilitate the continuance of exchanges and are sufficient to the second condition. The second condition is more stringent than the first. Empirical evidence suggests that technological convergence may be the specific and important historical occurrence when markets in technological knowledge emerge. Technological convergence meant that there were areas where knowledge could be transferred across industries, and in that process of transference knowledge also became more generic and abstract.

Atkinson, A. B.

PD July 1998. **TI** Microsimulation and Policy Debate: A Case Study of the Minimum Pension Guarantee in Britain. **AU** Atkinson, A. B.; Sutherland, Holly. **AA** Atkinson: Nuffield College, University of Oxford. Sutherland: University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9815; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 11. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C81, D31, H55. **KW** Microsimulation. Policy Debate. Pensions. United Kingdom.

AB This paper is concerned with the relationship between microsimulation models and policy debate. It seeks to highlight some of the ways in which these models can contribute to debate, both in answering questions and in posing new ones. As an illustration, the authors consider a case study of the minimum pension guarantee, which has been proposed as a reform of the state pension system in the UK.

Aubert, Ludovic

PD January 1999. **TI** Private Information: An Argument for a Fixed Exchange Rate System. **AU** Aubert, Ludovic; Laskar, Daniel. **AA** Aubert: Universite d'Evry. Laskar: CNRS, CEPREMAP. **SR** CEPREMAP Discussion Paper: 9903; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 40. **PR** between 25-35 francs. **JE** D82, E52, E58, F41. **KW** Exchange Rates. Credibility. Monetary Policy. Private Information.

AB In a two-country model, the paper considers reputational equilibria for monetary policies in the case where the central banks have some private information. It is shown that a fixed exchange rate system may lead, in both countries, to lower inflation biases than a flexible exchange rate system. No exogenous costs (like "political costs") of leaving the fixed exchange rate system are required for such a result to hold. The reason is that private information makes a money supply rule more difficult to sustain through reputational forces than an exchange rate rule.

Audretsch, David B.

PD September 1998. **TI** Innovation in Cities: Science-Based Diversity, Specialization and Localized Competition. **AU** Audretsch, David B.; Feldman, Maryann P. **AA** Audretsch: Wissenschaftzentrum Berlin fur Sozialforschung. Feldman: Goucher College. **SR** Centre for Economic Policy Research Discussion Paper: 1980; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** L20, O12, O14, O31, O33. **KW** Innovation. Economic Development. Agglomeration. Spillovers. Growth.

AB Whether diversity or specialization of economic activity better promotes technological change and subsequent economic growth has been the subject of a heated debate in the economics literature. The purpose of this paper is to consider the effect of the composition of economic activity on innovation. We test whether the specialization of economic activity within a narrow concentrated set of economic activities is more conducive to knowledge spillovers or if diversity, by bringing together complementary activities, better promotes innovation. The evidence provides considerable support for the diversity thesis but little support for the specialization thesis.

PD October 1998. **TI** How and Why Does Knowledge Spill Over? The Case of Biotechnology. **AU** Audretsch, David B.; Stephan, Paula E. **AA** Audretsch: Wissenschaftzentrum Berlin fur Sozialforschung. Stephan: Georgia State University. **SR** Centre for Economic Policy Research Discussion Paper: 1991; Centre for Economic Policy

Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 28. **PR** 5 pounds or 8 dollars or 8 euros. **JE** L65, M13, O14, O31, O32. **KW** Knowledge Spillovers. Biotechnology. Science. Start-Ups. Entrepreneurship.

AB This paper sheds light on the questions, Why does knowledge spill over? and How does knowledge spill over? The answer to these questions lies in the incentives confronting scientists to appropriate the expected value of their knowledge considered in the context of their path-dependent career trajectories. In particular, we focus on the ability of scientists to appropriate the value of their knowledge embedded in their human capital along with the incentive structure influencing it and how scientists choose to commercialize their knowledge. We use a hazard model to estimate the duration over a scientist's career to starting a new biotechnology firm. We conclude that the spillover of knowledge from the source creating it, such as a university, research institute, or industrial corporation, to a new-firm start-up facilitates the appropriation of knowledge for the individual scientist(s) but not necessarily for the organization creating that knowledge.

PD October 1998. **TI** Industrial Organization and the New Industrial Policy. **AA** Wissenschaftzentrum Berlin fur Sozialforschung. **SR** Centre for Economic Policy Research Discussion Paper: 1997; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 56. **PR** 5 pounds or 8 dollars or 8 euros. **JE** L10, L40, L52, O14, O38. **KW** Industrial Policy. Economic Development. Industrial Evolution. Antitrust. Regulation.

AB This paper attempts to shed some new light on the current industrial policy crisis. This paper proposes that the industrial policy debate is shaped by knowledge about the functioning of the underlying industrial structure. The main conclusion is that the current industrial policy dilemma is the result of a shift in the fundamental long-run forces underlying the organization of industries. The declining long-run average cost curves characteristic of manufacturing for the better part of a century have given way to the generation and commercialization of new knowledge as the predominant economic force determining comparative advantage. The traditional instruments of industrial policy -- anti- trust, regulation and public ownership -- have correspondingly given way to a new set of industrial policies that, rather than focusing on restraining the freedom of large corporations to contract, are devoted to the creation and commercialization of new knowledge.

PD January 1999. **TI** Does Science Make a Difference? Investment, Finance and Corporate Governance in German Industries. **AU** Audretsch, David B.; Weigand, Jurgen. **AA** Audretsch: Wissenschaftzentrum Berlin fur Sozialforschung. Weigand: Indiana University. **SR** Centre for Economic Policy Research Discussion Paper: 2056; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 dollars or 8 dollars or 8 euros. **JE** G31, G32, L20, O31. **KW** Determinants of Investment. Corporate Governance. Innovation. Liquidity Constraints. Science.

AB This paper examines the impact of industry knowledge conditions and corporate governance structures on tangible investment and its financing. Based on a large panel data set of German firms the authors investigate whether liquidity constraints vary systematically across firms engaged in activities reflecting very different knowledge conditions. In particular, they compare the extent of liquidity constraints in science-based firms with non science-based firms. This distinction is important because science-based firms generally fit the characteristics of market failure identified by Kenneth Arrow. Science- based economic activity is subject to high uncertainty, asymmetric knowledge and non-exclusiveness so liquidity constraints might be severe. Surprisingly, firms in science-based industries are less liquidity constrained than are their non science-based counterparts. In fact, the larger science-based firms do not seem to face liquidity constraints at all. However, governance structures play an important role. The authors observe that owner-controlled but not manager-controlled firms are significantly liquidity constrained.

Bacchetta, Philippe

TI Financial Liberalization and Volatility in Emerging Market Economies. **AU** Aghion, Philippe; Bacchetta, Philippe; Banerjee, Abhijit.

Backus, David

PD August 1998. **TI** Discrete-Time Models of Bond Pricing. **AU** Backus, David; Foresi, Silverio; Telmer, Chris. **AA** Backus: New York University. Foresi: Saloman Smith Barney. Telmer: Carnegie Mellon University. **SR** New York University, Salomon Center Working Paper: S/98/40; 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** 27. **PR** $5.00 each; $100.00 yearly subscription. **JE** E43, G12. **KW** Bond Yields. Pricing Kernels. Forward Rates. Fixed Income Derivatives. Asset Pricing.

AB We explore a variety of models and approaches to bond pricing, including those associated with Vasicek, Cox-Ingersoll-Ross, Ho and Lee, and Heath-Jarrow-Morton, as well as models with jumps, multiple factors, and stochastic volatility. We describe each model in a common theoretical framework and explain the reasoning underlying the choice of parameter values. Our framework has continuous state variables but discrete time, which we regard as a convenient middle ground between the stochastic calculus of high theory and the binomial models of classroom fame. In this setting, most of the models we examine are easily implemented on a spreadsheet.

Baghdadli, Ilhem

PD August 1998. **TI** Proliferation Under Threat of Entry: Pre-Emptive Investment or "Hopeful Monsters"? **AU** Baghdadli, Ilhem; Henriet, Dominique. **AA** Baghdadli: Aix en Provence and Universite de la Mediterranee. Henriet: GREQAM and IDEP. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9846; 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** D40, L12, L13, L21, L22. **KW** Proliferation. Brand Proliferation. Preemption. Industrial Organization. Entry.

AB Proliferation is a strategic behavior which follows various logics. However, the literature associates almost systematically the question of proliferation to that of preemption, in such a way that the interest in the incumbent's offer of proliferation can only be measured in terms of its preemptive power. The decision to proliferate is a choice which

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must be made by the incumbent even before he is aware of the particular characteristics of his future challengers. Therefore he runs the risk of choosing a position which he may be unable to sustain once the market is mature, particularly if he stands up to more technologically advanced opponents or those with an organization superior to his own. In this setting the authors show that brand proliferation looks like a development of "hopeful monsters" that can limit the risk run by the firm of being excluded from the mature markets.

Bailey, Ralph W.

PD April 1998. **TI** The Interpretation of Weak Sustainability Measures, and their Values in a Computed General Equilibrium Model of the World Economy. **AU** Bailey, Ralph W.; Clarke, Rosemary. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/14; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 22. **PR** 2 pounds ($4); no charge to academics. **JE** D58, Q20, Q32, Q40. **KW** Weak Sustainability. Sustainability Measures. General Equilibrium. Fossil Fuels.

AB There is controversy surrounding so-called "weak sustainability measures" which attempt to measure sustainability according to current changes in manufactured and natural capital. In the framework of a dynamic control model, these measures are related to the rate of change of the utility of a time-discounting social planner. This paper discusses the extent to which the criticisms remain valid once this interpretation is adopted. The second part of the paper illustrates the time-discounting nature of the measures, using the OECD model GREEN (General Equilibrium Environmental model) to show how the prospects for a growing economy may appear relatively rosy even if the rate of fossil fuel depletion is high. Finally the paper discusses the adjustment of the measures when trade takes place.

TI Chaos in a Standard Equilibrium Exchange-Rate Model. **AU** da Silva, Sergio; Bailey, Ralph W.

Bajpai, Nirupam

PD July 1998. **TI** Strengthening India's Strategy for Economic Growth. **AU** Bajpai, Nirupam; Sachs, Jeffrey D. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 641; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 16. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** F43, H54, O11, O23, O40. **KW** Development Planning. Exports. Stabilization. Reform Agenda. Growth.

AB We suggest a three-pronged approach to an enhanced growth strategy for India. The first prong is export-led growth. Here the lessons of China are particularly instructive, since China achieved in the past fifteen years the kind of export-led growth that India could have achieved, but failed to do so, because of poor public policies. The second prong is rural improvement, especially in the vast population of the Gangetic valley. India needs a specific strategy to bring modern economic growth to rural India, through a concerted campaign of infrastructure upgrading and appropriate re-design of state policy. The third prong is the maintenance of macroeconomic stability, to avoid the kind of crisis that pushed East Asia into economic collapse. The macroeconomic stakes have obviously been raised in the past year. India's macroeconomic policies will be under scrutiny as perhaps never before following the onset of the East Asian financial crisis.

Baland, Jean-Marie

PD October 1998. **TI** Daily Wages and Piece Rates in Agrarian Economies. **AU** Baland, Jean-Marie; Dreze, Jean; Leruth, Luc. **AA** Baland: University of Namur. Dreze: London School of Economicsand Delhi School of Economics. Leruth: Universite Catholique de Louvain and University of Liege. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9858; 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** J41, J42, J43, O53. **KW** India. Labor Contracts. Agricultural Labor. Daily Wages. Piece Rates.

AB This paper presents an analysis of the coexistence of daily-wage and piece-rate contracts in agrarian economies. We show that, when individual effort is taken into account, daily-wage laborers typically form a convex set in the space of working ability. The most able and the least able laborer work on piece rates, as they can thus choose their own level of effort. We also prove that, on a monopsonistic labor market, the use of both contracts in equilibrium results from the profitability of market segmentation. Imperfect substitutability between workers under different contracts and the downward rigidity of daily wages can also explain the coexistence of the two types of contracts in more general settings, e.g. perfect competition.

Bams, Dennis

TI Direct Estimation of the Risk Neutral Factor Dynamics of Affine Term Structure Models. **AU** Schotman, Peter C.; Bams, Dennis.

Banerjee, Abhijit

TI Financial Liberalization and Volatility in Emerging Market Economies. **AU** Aghion, Philippe; Bacchetta, Philippe; Banerjee, Abhijit.

Barros, Pedro P.

PD October 1998. **TI** Industrial Policy and Firm Heterogeneity. **AU** Barros, Pedro P.; Nilssen, Tore. **AA** Barros: Universidade Nova de Lisboa. Nilssen: University of Oslo. **SR** Centre for Economic Policy Research Discussion Paper: 1986; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F13, H25, L52, O31. **KW** Firm Heterogeneity. Industrial Policy. Research and Development. Business Taxes.

AB Our concern is about a firm-specific industrial policy. When R&D subsidies or taxes are differentiated among firms, the question arises which firms in an industry should receive such support. We analyze a situation where firms differ in their R&D technologies in two distinct ways: they differ both in the costs of performing R&D activities and in the output obtained from such activities. The introduction of several domestic firms creates a corrective motive for government intervention with the firms' R&D activities in addition to Spencer and Brander's strategic motive. We find that the optimal firm-specific

industrial policy is affected differently by the two sources of firm heterogeneity. Moreover, a change in a firm's R&D productivity has an ambiguous effect on the optimal policy towards the firm.

Basu, Anupam

TI Adjustment and Growth in Sub-Saharan Africa. **AU** Calamitsis, Evangelos A.; Basu, Anupam; Ghura, Dhaneshwar.

Bauer, Thomas

PD October 1998. **TI** Temporary Migrants from Egypt: How Long Do They Stay Abroad? **AU** Bauer, Thomas; Gang, Ira N. **AA** Bauer: SELAPO. Gang: Rutgers University. **SR** Centre for Economic Policy Research Discussion Paper: 2003; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F22, J61, O15. **KW** Return Migrants. Duration of Migration. Temporary Migration. Egypt.

AB This paper analyzes the determinants and timing of return migration. Special attention is given to the role of social and informational migration networks. A simple theoretical model of temporary migration demonstrates that the effect of migration networks on optimal migration duration is ambiguous. Using a sample of return migrants from six different villages in Egypt we investigate the determinants of migration duration using a flexible parametric proportional hazard model for discrete duration data. Controlling for human capital and demographic characteristics of the migrants and economic indicators for the host country, the estimation results show that informational networks have a statistically significant negative effect on migration duration.

PD December 1998. **TI** Portuguese Migrants in the German Labour Market: Performance and Self-Selection. **AU** Bauer, Thomas; Zimmermann, Klaus F.; Vogler, Michael; Pereira, Pedro T. **AA** Bauer, Zimmermann and Vogler: IZA. Pereira: Universidade Nova de Lisboa. **SR** Centre for Economic Policy Research Discussion Paper: 2047; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F22, J31, J61, J68. **KW** Portuguese Migration. Immigrants. Labor Markets. Self Selection. Migration Policy.

AB Using a large new data set, we analyze the labor market performance of Portuguese workers in Germany. While previous work compares wages and characteristics of migrants only to those of natives, we match the data also with an equivalent survey from the sending country. We find that Portuguese migrants as a whole are negatively selected with the exception of blue-collar workers that are the greatest group among them. The observation that Portuguese migrants earn more than comparable Germans indicates that they have higher unobservable skills. Our results confirm the effectiveness of the German guest worker system.

Bauwens, Luc

PD August 1998. **TI** Asymmetric ACD Models: Introducing Price Information in ACD Models with a Two State Transition Model. **AU** Bauwens, Luc; Giot, Pierre. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9844; 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** C10, C41, G11, G12. **KW** Duration. High Frequency Data. Market Microstructure. Price Process. Asset Pricing.

AB This paper proposes a class of asymmetric Autoregressive Conditional Duration models, which extends the ACD model of Engle and Russell (1997). The asymmetry consists of letting the duration process depend on the state of the price process in the beginning and at the end of each duration. If the price has increased, the parameters of the ACD can differ from what they are if the price has decreased. Thus the model is also a transition model for the price process, with durations following an ACD process. The logarithmic version of the model is applied to the bid/ask price revision process by the specialist for the IBM stock on the New York Stock Exchange. The empirical evidence in favor of asymmetry is compelling.

Bayoumi, Tamim

PD September 1998. **TI** Exchange Rate Volatility and Intervention: Implications of the Theory of Optimum Currency Areas. **AU** Bayoumi, Tamim; Eichengreen, Barry. **AA** Bayoumi: International Monetary Fund. Eichengreen: University of California, Berkeley. **SR** Centre for Economic Policy Research Discussion Paper: 1982; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F31, F36. **KW** Exchange Rate Volatility. Optimum Currency Areas. Intervention. Foreign Exchange.

AB We show that the variables pointed to by the theory of optimum currency areas (OCA's) help to explain patterns of exchange rate variability and intervention across countries. But OCA considerations affect exchange market pressures and intervention in different ways. Exchange market pressures mainly reflect asymmetric shocks, while intervention largely reflects the variables that OCA theory suggests cause countries to value stable exchange rates (small size and the extent of trade links). Intervention and exchange market pressure also vary with the structure of the international monetary system.

PD October 1998. **TI** Liability-Creating Versus Non-Liability-Creating Fiscal Stabilization Policies: Ricardian Equivalence, Fiscal Stabilization, and EMU. **AU** Bayoumi, Tamim; Masson, Paul R. **AA** International Monetary Fund. **SR** Centre for Economic Policy Research Discussion Paper: 1984; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E63, H31, H73, H77. **KW** Fiscal Stabilization. Levels of Government. Ricardian Equivalence. Tax Liability.

AB This paper looks at theoretical and empirical issues associated with the operation of fiscal stabilizers within an economy. It argues that such stabilizers operate most effectively at a national, rather than local, level. As differing cycles across regions tend to offset each other for the country as a whole, national fiscal stabilizers are not associated with the same increase in future tax liabilities for the region as local ones. Accordingly, the negative impact from the Ricardian effects associated with these tax liabilities is smaller. Empirical work on data across Canadian provinces indicates that local stabilizers are only one-third to one-half as effective as national stabilizers which create no future tax liability.

Bekka, Khalid

TI The Environmental Impact of Highway Congestion Pricing. **AU** Daniel, Joseph I.; Bekka, Khalid.

TI Congestion Pricing of Highway Networks. **AU** Daniel, Joseph I.; Bekka, Khalid.

Beltran, Luis

TI Special Report on the Market Size and Investment Performance of Defaulted Bonds and Bank Loans: 1987-1998. **AU** Altman, Edward I.; Beltran, Luis.

Belvaux, Gaetan

PD September 1998. **TI** Lot-Sizing Problems: Modelling Issues and a Specialized Branch-and- Cut System BC-PROD. **AU** Belvaux, Gaetan; Wolsey, Laurence A. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9849; 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** C61, C87, C88, D24, L23. **KW** Lot-Sizing. Production Planning. Integer Programming. Modeling Systems. Branch-and-Cut.

AB bc-prod is a prototype modeling and optimization system designed and able to tackle a wide variety of the discrete-time lot-sizing problems arising both in practice and in the literature. To use bc-prod, the user needs to formulate his/her problem as a mixed integer program using XPRESS-MP's mp-model, a standard mathematical programming modeling language taking into account a reserved set of key-words for specific lot-sizing objects, such as production variables, storage and demand data, etc. The problem is then solved by the XPRESS-MP branch-and-bound system including lot-sizing preprocessing, cutting planes for different aspects of lot-sizing problems, plus general cutting planes, and a lot- sizing specific primal heuristic. Results are presented for a wide variety of big bucket and small bucket models with set-up and start-up costs and times.

Bender, Inglolfur

PD June 1998. **TI** De-Industrialization: The Case of Iceland. **AU** Bender, Inglolfur; Rowthorn, Robert E. **AA** Bender: Federation of Icelandic Industries, Reykjavik, Iceland. Rowthron: University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 94; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 37. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** F43, L11, L16, L60, O52. **KW** De-Industrialization. Iceland. Manufacturing. Growth. Employment.

AB In Iceland, recent de-industrialization, defined as a declining share of manufacturing in national employment, is associated with poor productivity growth and output performance, and reflects the harmful impact of a one-off boom in marine exports. Through misguided policies, Iceland has consumed the windfall gains and allowed production to shift from exposed to sheltered sectors. This has led to unemployment and retarded long-term economic growth. In conclusion, the future role of Icelandic manufacturing and associated policy issues are considered.

Benhabib, Jess

PD June 1998. **TI** Monetary Policy and Multiple Equilibria. **AU** Benhabib, Jess; Schmitt-Grohe, Stephanie; Uribe, Martin. **AA** Benhabib: New York University. Schmitt-Grohe and Uribe: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/29; 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** E31, E43, E52, E63. **KW** Monetary Policy. Interest Rates. Feedback Rules. Multiple Equilibria. Sticky Prices.

AB In this paper, we study interest rate feedback rules whereby the nominal interest rate is set as an increasing function of the inflation rate and characterize conditions under which such rules generate multiple equilibria. We show that these conditions depend not only on the monetary-fiscal regime (as emphasized in the fiscal theory of the price level) but also on the way in which money is assumed to enter preferences and technology. We analyze this issue in flexible and sticky price environments. We provide a number of examples in which, contrary to what is commonly believed, active monetary policy in combination with a fiscal policy that preserves government solvency gives rise to multiple equilibria and passive monetary policy renders the equilibrium unique.

Berck, Peter

PD October 1998. **TI** A Strong Test of the Von Liebig Hypothesis. **AU** Berck, Peter; Geoghegan, Jacqueline; Stohs, Stephen. **AA** Berck and Stohs: University of California, Berkeley. Geoghegan: Clark University. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 860; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 25. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C52, E23, Q10. **KW** Production Functions. Von Liebig Hypothesis. Agriculture.

AB An implication of the von Liebig hypothesis is that crop production functions have square isoquants. This paper presents a nonparametric test for square isoquants. The procedure is used to test experimental data on corn and wheat.

Berger, Allen N.

PD March 1998. **TI** The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle. **AU** Berger, Allen N.; Udell, Gregory F. **AA** Berger: Board of Governors of the Federal Reserve System and Wharton Financial Institutions Center. Udell: New York University. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/15; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 52. **PR** no charge. **JE** E58, G21, G28, G32, G34. **KW** Venture Capital. Small Businesses. Lending. Banking. Mergers.

AB We examine the economics of financing small business in private equity and debt markets. Firms are viewed through a financial growth cycle paradigm in which different capital structures are optimal at different points in the cycle. We show

the sources of small business finance, and how capital structure varies with firm size and age. The interconnectedness of small firm finance is discussed along with the impact of the macroeconomic environment. We also analyze a number of research and policy issues, review the literature, and suggest topics for future research.

PD March 1998. **TI** Comparing Market and Supervisory Assessments of Bank Performance: Who Knows What When? **AU** Berger, Allen N.; Davies, Sally M.; Flannery, Mark J. **AA** Berger: Board of Governors of the Federal Reserve System and Wharton Financial Institutions Center. Davies: Board of Governors of the Federal Reserve System. Flannery: University of Florida. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/32; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 27. **PR** no charge. **JE** E58, G21, G28, G38. **KW** Banking. Supervision. Market Discipline. Bond Rating Agencies.
AB We compare the timeliness and accuracy of government supervisors versus market participants in assessing the condition of large U.S. bank holding companies. We find that supervisors and bond rating agencies both have some prior information that is useful to the other. In contrast, supervisory assessments and equity market indicators are not strongly interrelated. We also find that supervisory assessments are much less accurate overall than both bond and equity market assessments in predicting future changes in performance, but supervisors may be more accurate when inspections are recent. To some extent, these results may reflect differing incentives of the parties.

PD November 1998. **TI** The Consolidation of the Financial Services Industry: Causes, Consequences, and Implications for the Future. **AU** Berger, Allen N.; Demsetz, Rebecca S.; Strahan, Philip E. **AA** Berger: Board of Governors of the Federal Reserve System and Wharton Financial Institutions Center. Demsetz and Strahan: Federal Reserve Bank of New York. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/46; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 68. **PR** no charge. **JE** E58, G21, G28, G34, L89. **KW** Banking. Mergers. Payments. Small Business. Financial Services.
AB This article designs a framework for evaluating the causes, consequences, and future implications of financial consolidation, reviews the extant research literature within the context of this framework (over 250 references), and suggests fruitful avenues for future research. The evidence is consistent with increases in market power from some types of consolidation; improvements in profit efficiency and diversification of risks, but little or no cost efficiency improvements; relatively little effect on the availability of services to small customers; potential improvements in payments system efficiency; and potential costs on the financial system from increasing systemic risk or expanding the financial safety net.

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 Wharton Financial Institutions Center. Mester: University of Pennsylvania. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/13; 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** 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.

Berkowitz, Jeremy

PD August 1998. **TI** Dealer Polling in the Presence of Possibly Noisy Reporting. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/33; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 16. **PR** no charge. **JE** C13, C15, C50, G12, G13. **KW** Trimmed Mean. Derivatives. Robust Estimation. Huber Estimator. Simulation.
AB The values of a vast array of financial assets are functions of rates or prices determined in OTC, interbank or other off-exchange markets. In order to price such derivative assets, underlying price indexes must be surveyed and processed. At present, many standard contracts utilize a technique known as trimmed-means to guard against misreporting, whether unintentional or for market manipulation. This paper points out that the polling problem falls within the statistical framework of robust estimation. Intuitive and economically meaningful criteria for choosing among robust valuation procedures are discussed. In particular, the approach taken is to minimize the worst-case scenario arising from a false report. The finite sample performance of the procedures which qualify, the trimmed-mean and the Huber-estimator, are examined in a set of simulation experiments.

PD January 1999. **TI** On the Finite Sample Accuracy of Nonparametric Resampling Algorithms for Economic Time Series. **AU** Berkowitz, Jeremy; Birgean, Ionel; Kilian, Lutz. **AA** Berkowitz: Board of Governors of the Federal Reserve System. Birgean and Kilian: University of Michigan. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/04; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 42. **PR** no charge. **JE** C13, C14, C22. **KW** Bootstrap. Nonparametric Resampling. Time Series. Impulse Response.
AB In recent years, there has been increasing interest in nonparametric bootstrap inference for economic time series. Nonparametric resampling techniques help protect against overly optimistic inference in time series models of unknown structure. They are particularly useful for evaluating the fit of

dynamic economic models in terms of their spectra, impulse responses, and related statistics, because they do not require a correctly specified economic model. However, their reliability in small samples is questionable. This paper provides a benchmark for the relative accuracy of several nonparametric resampling algorithms based on ARMA representations of four macroeconomic time series. For each algorithm, the authors evaluate the effective coverage accuracy of impulse response and spectral density bootstrap confidence intervals for standard sample sizes. They find that the autoregressive sieve approach based on the encompassing model is most accurate. However, care must be exercised in selecting the lag order of the autoregressive approximation.

PD January 1999. **TI** Evaluating the Forecasts of Risk Models. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/11; 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** C52, G11, G12, G13. **KW** Forecasting. Model Evaluation. Risk. Value-at-Risk. Interval Forecasts.
AB The forecast evaluation literature has traditionally focused on methods for assessing point-forecasts. However, in the context of risk models, interest centers on more than just a single point of the forecast distribution. For example, value-at-risk (VaR) models, which are currently in extremely wide use, form interval forecasts. Many other important financial calculations also involve estimates not summarized by a point-forecast. Although some techniques are currently available for assessing interval and density forecasts, none are suitable for sample sizes typically available. This paper suggests a new approach to evaluating such forecasts. It requires evaluation of the entire forecast distribution, rather than a value-at-risk quantity. The information content of forecast distributions combined with ex post loss realizations is enough to construct a powerful test even with sample sizes as small as 100.

Berndt, Christian

PD June 1998. **TI** Corporate Germany at the Crossroads? Americanization, Competitiveness and Place Dependence. **AA** Catholic University Eichstatt, Germany. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 98; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 32. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** F23, G32, J53, L20, R30. **KW** German Model. Multinational Firms. Corporate Restructuring. Internationalization. Ruhr.
AB Recent years have witnessed growing internationalization and increasing dependence on global financial capital by German multinationals. This paper critically evaluates claims of a resultant cultural sea-change in German corporate governance behavior, towards an Anglo-Saxon paradigm, using detailed evidence from three Ruhr-based transnationals. This reveals evidence of an Americanization process, most clearly in power relations between capital owners, management and labor. However, it also identifies strong forces of institutional persistence, rooted in territorial networks and regional and national regulatory structures.

Bester, Helmut

PD December 1998. **TI** Wages and Productivity Growth in a Competitive Industry. **AU** Bester, Helmut; Petrakis, Emmanuel. **AA** Bester: Free University of Berlin. Petrakis: University of Crete. **SR** Centre for Economic Policy Research Discussion Paper: 2031; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 28. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D24, D41, D92, J31, O31. **KW** Process Innovation. Industry Dynamics. Wages. Productivity Growth. Labor Productivity.
AB Our model studies the evolution of productivity growth in a competitive industry. The exogenous wage rate determines the firms' engagement in labor productivity enhancing process innovation. There is a unique steady state of the industry dynamics, which is globally stable. In the steady state, the number of active firms, their unit labor cost and supply depend on the growth rate but not on the level of the wage rate. In addition to providing comparative statics of the steady state, the paper characterizes the industry's adjustment path.

PD December 1998. **TI** Strategic Pricing, Signalling and Costly Information Acquisition. **AU** Bester, Helmut; Ritzberger, Klaus. **AA** Bester: Free University of Berlin. Ritzberger: Institute for Advanced Studies. **SR** Centre for Economic Policy Research Discussion Paper: 2032; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 28. **PR** 5 pounds or 8 dollars or 8 euros. **JE** C72, D42, D82, G14, L12. **KW** Quality Uncertainty. Price Signaling. Information Acquisition. Monopoly. Noncooperative Games.
AB Consider a market where an informed monopolist sets the price for a good or asset with a value unknown to potential buyers. Upon observing the price, buyers may pay some cost for information about the value before deciding on purchases. To restrict buyer beliefs we generalize the idea of the Cho-Kreps "intuitive criterion". Then there is no separating equilibrium with fully revealing prices. Yet, as the cost of information acquisition becomes small, the equilibrium approaches the full information outcome and prices become perfectly revealing.

Biais, Bruno

TI Machiavellian Underpricing. **AU** Perotti, Enrico C.; Biais, Bruno.

Bichsel, Robert

PD February 1999. **TI** A Silver Rule for Financing Local Transport Facilities. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9902; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 22. **PR** no charge. **JE** H41, H71, R42, R53. **KW** Land Rents. Transport Facilities. Henry George Theorem. Public Goods.
AB According to the Henry George Theorem (HGT), the cost of a pure local public good can be covered through a tax on related land rents. This paper shows that this general proposition does not apply to transport facilities. Nonetheless, even if the "Golden Rule" does not apply in this context, land value and transport facilities are related. The authors show that (i) an improvement of the transport facilities does have a

positive effect onto land value when taking into account the effect on the equilibrium city size; (ii) a simple relationship, similar to the HGT, does exist between the cost of optimal transport facilities and aggregate land rents; (iii) any exogenous shock reducing travel costs leads to higher optimal spending in transport facilities and higher land value. This suggests that associated changes in land value could, in a way the authors define, subsidize optimal improvements in transport facilities.

Binder, Michael

PD October 1997. **TI** Optimal Consumption Decisions under Social Interactions. **AU** Binder, Michael; Pesaran, M. Hashem. **AA** Binder: University of Maryland. Pesaran: University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9805; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 21. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D11, D62, D64, D91. **KW** Decisions. Peer Groups. Intertemporal Consumption. Social Interactions.

AB This paper examines the extent to which social interactions affect optimal consumption decisions in peer groups. To this purpose, a standard life-cycle model with quadratic utility is augmented to allow for three different forms of social interaction, namely, conformism, altruism, and jealousy. The analysis of this model also allows for habit formation, and is carried out under both homogeneous and disparate information sets. An important feature of the resulting individual- specific and group-average optimal consumption decisions is that even if individuals' preferences include a (potentially strong and possible heterogeneous) motive for social interactions, under certain conditions these decisions will be equivalent to those in a peer group of self- centered individuals who attach no value to social interactions. The paper also provides a relatively simple framework for the empirical analysis of consumption behavior in peer groups.

PD February 1998. **TI** Analytical and Numerical Solution of Finite-Horizon Nonlinear Rational Expectations Models. **AU** Binder, Michael; Pesaran, M. Hashem; Samiei, S. Hossein. **AA** Binder: University of Maryland. Pesaran: University of Cambridge. Samiei: International Monetary Fund. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9808; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 20. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C61, D81, D91, E21. **KW** Nonlinear Models. Rational Expectations. Intertemporal Consumption. Minimum-Weighted Residual.

AB This paper considers the solution of nonlinear rational expectations models resulting from the optimality conditions of a finite-horizon intertemporal optimization problem satisfying Bellman's principle of optimality (and possibly involving the inequality constraints). A backward recursive procedure is used to characterize and solve the time- varying optimal decision rules generally associated with these models. At each stage of these backward recursions, either an analytical or numerical solution of the optimality conditions is required. When an analytical solution is not possible, a minimum weighted residual approach is used. The solution technique is illustrated using a life- cycle model of consumption under labor income and interest rate uncertainties (and possibly involving liquidity constraints). Approximate numerical solutions are provided and compared with certainty-equivalent solutions and, when possible, with exact solutions.

Birgean, Ionel

TI On the Finite Sample Accuracy of Nonparametric Resampling Algorithms for Economic Time Series. **AU** Berkowitz, Jeremy; Birgean, Ionel; Kilian, Lutz.

Bisin, Alberto

PD October 1998. **TI** Moral Hazard and Non-Exclusive Contracts. **AU** Bisin, Alberto; Guaitoli, Danilo. **AA** Bisin: New York University. Guaitoli: Universitat Pompeu Fabra. **SR** Centre for Economic Policy Research Discussion Paper: 1987; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D61, D82, G20, L14. **KW** Asymmetric Information. Exclusivity. Efficiency. Contracts. Financial Intermediation.

AB This paper studies equilibria for economies characterized by moral hazard (hidden action), in which the set of contracts marketed in equilibrium is determined by the interaction of financial intermediaries. The crucial aspect of the environment that we study is that intermediaries are restricted to trade non-exclusive contracts: the agents' contractual relationships with competing intermediaries cannot be monitored (or are not contractible upon). We fully characterize equilibrium allocations and contracts. In this set-up equilibrium allocations are clearly incentive-constrained inefficient. A robust property of equilibria with non-exclusivity is that the contracts issued in equilibrium do not implement the optimal action. Moreover we prove that, whenever equilibrium contracts do implement the optimal action, intermediaries make positive profits and equilibrium allocations are third best inefficient (where the definition of third best efficiency accounts for constraints which capture the non-exclusivity of contracts).

Bixby, Robert

TI On the Solution of Traveling Salesman Problems. **AU** Applegate, David; Bixby, Robert; Cook, William; Chvatal, Vasek.

TI Finding Tours in the TSP. **AU** Applegate, David; Bixby, Robert; Chvatal, Vasek; Cook, William.

Blankenburg, Stephanie

PD September 1998. **TI** University-Industry Relations, Innovation and Power: A Theoretical Framework for the Study of Technology Transfer from the Science Base. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 102; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 75. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D80, L14, O31, O32, O34. **KW** Innovation. Technology Transfer. Production Regimes. Information Economics. Power.

AB This paper critically reviews a range of existing theoretical approaches, and particularly the information

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economics and evolutionary/knowledge-based approaches, to studying the organization of innovation, with the goal of assessing their contribution to a better understanding of the rationale underlying co-operation between universities and industry. Having criticized these approaches, an alternative framework is developed which regards innovation as an inherently social and political process, and conceptualizes university- industry relations (UIRs) as a strategic relation of power governed by a particular "regime of production".

Bloise, Gaetano

PD June 1998. **TI** Inflation, Welfare and Public Goods. **AU** Bloise, Gaetano; Currarini, Sergio; Kikidis, Nicholas. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9837; 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** D60, E21, E31, E52, H41. **KW** Public Goods. Overlapping Generations. Inflation. Welfare. Monetary Policy.

AB In this paper we study the welfare effects of monetary policy in a simple overlapping generation economy in which agents voluntarily contribute to a public good. Inflation has two effects at equilibrium: it increases voluntary contributions and it misallocates private consumption across time. We show that the aggregate effect is welfare improving for "not too high" inflation rates. Moreover, there exists an optimal inflation rate.

Blomstrom, Magnus

PD December 1998. **TI** Technology, Transfer and Spillovers: Does Local Participation With Multinationals Matter? **AU** Blomstrom, Magnus; Sjoholm, Fredrik. **AA** Stockholm School of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 2048; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 24. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F21, F23, O30. **KW** Multinational Corporations. Foreign Direct Investment. Joint Ventures. Technology. Spillovers.

AB This paper examines the effects on technology transfer and spillovers deriving from ownership sharing of foreign multinational affiliates. More specifically, we try to answer two questions, using unpublished Indonesian micro data. First, do establishments with minority and majority ownership differ in terms of productivity levels? Second, does the degree of spillover differ with the degree of ownership in the Foreign Direct Investment (FDI)? Our results show that foreign establishments have comparable high levels of labor productivity and that domestic establishments benefit from spillovers. The degree of foreign ownership affects neither the level of labor productivity in foreign establishments, nor the degree of spillovers.

Blundell, Richard

PD 1997. **TI** Estimation in Large and Disaggregated Demand Systems: An Estimator for Conditionally Linear Systems. **AU** Blundell, Richard; Robin, Jean-Maie. **AA** Blundell: Institute for Fiscal Studies. Robin: Institut National de la Recherche Agronomique and CREST. **SR** Document de Travail du CREST: 9708; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 28. **PR** no charge. **JE** C31, C63, D12. **KW** Nonlinear Systems. Demand Analysis. Moment Estimators. Conditional Linearity.

AB Empirical demand systems that do not impose unreasonable restrictions on preferences are typically nonlinear. For empirical purposes, exact estimation of nonlinear equation systems for large data sets with more than a small number of equations has typically been limited by nonlinearities in the parameters of interest. We show, however, that all popular systems possess the property of conditional linearity, including the Translog, Almost Ideal and Linear Expenditure Systems. A computationally attractive iterated linear estimator (ILLE) is proposed for large nonlinear simultaneous equation systems which are conditionally linear in unknown parameters. The estimator is shown to be consistent and its asymptotic efficiency properties are derived. An application is given for a 22 commodity quadratic demand system using household level data from a time series of repeated cross-section drawn from the UK Family Expenditure Survey 1974-1993.

Boccard, Nicolas

PD September 1998. **TI** A Necessary Condition For Optimality in Renegotiation Design. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9852; 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** D82, L14. **KW** Contracts. Renegotiation. Bargaining Power. Investment. Hold Up.

AB Williamson (1979) claims that in a buyer-seller relationship with observable but unverifiable investments and state of nature, the hold up of future benefits leads to under investment. Aghion, Dewatripont and Rey (1994) resolve it provided that the initial contract can specify a default option and allocate the bargaining power to either of the parties in renegotiation. The necessity to rely on large financial hostage or a "once-for-all" monetary penalty to implement the latter hypothesis is open to criticism, but we show that the extreme allocation of the bargaining power is generically a necessary condition to implement the first best investments. Edlin and Reichelstein's (1996) first bet result with non-extreme allocation of the bargaining power is therefore a non-generic counter-example.

Bolton, Gary E.

TI Adaptive Learning versus Punishment in Ultimatum Bargaining. **AU** Abbink, Klaus; Bolton, Gary E.; Sadrieh, Abdolkarim; Tang, Fang-Fang.

Bond, Shaun A.

PD October 1998. **TI** Statistical Properties of the Sample Semi-Variance, with Applications to Emerging Markets' Data. **AU** Bond, Shaun A.; Satchell, Stephen E. **AA** University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9821; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 20. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C13, D81, F39, G11. **KW** Semi-Variance. Stochastic Dominance. Risk Measures. Emerging Markets.

AB In finance theory, the standard deviation of asset returns

is almost universally recognized as a measure of risk. This universality continues to exist even in the presence of the known limitations of using the standard deviation and also an extensive and growing literature on alternative risk measures. One possible reason for this persistence is that the sample properties of alternative risk measures are not well understood. This paper attempts to compare the sample distribution of the semi-variance with that of the variance. In particular, it explores the belief that while there are convincing theoretical reasons to use the semi-variance, the volatility of the sample measures is so high as to make the measure impractical in applied work. It also uses arguments based on stochastic dominance to compare the distribution of the two statistics. Conditions are developed to identify situations in which the semi-variance may be preferred to the variance. An empirical application using equity data from emerging markets demonstrates the approach.

Bontemps, Christian

PD March 1997. **TI** Equilibrium Search with Productivity Dispersion: Theory and Estimation. **AU** Bontemps, Christian; Robin, Jean-Maie; Van Den Berg, Geraiol. **AA** Bontemps: CREST-INSEE. Robin: INRA-CORELA and CREST-INSEE. Van Den Berg: Free University Amsterdam, Tinbergen Institute, and Centre for Economic Policy Research. **SR** Document de Travail du CREST: 9709; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 52. **PR** no charge. **JE** D24, E24, J41, J64. **KW** Labor Market. Job Search. Wages. Productivity.

AB In this paper we theoretically and empirically analyze equilibrium search models of the labor market. The Mortensen equilibrium search model is generalized by allowing for continuous distributions of firm productivity types within a given labor market. We characterize the full set of wage (offer) distributions that can in principle be generated by the model. We develop a structural nonparametric estimation method for the productivity distribution. We estimate the model using French longitudinal survey data on labor supply, and we compare the results on the relation between productivities and wages to those obtained using a French panel dataset of firms. The results are informative on the degree to which firms exploit search frictions.

Boone, Laurence

TI Economic Convergence of the CEEC's with the EU. **AU** Maurel, Mathilde; Boone, Laurence.

Bos, Dieter

PD April 1999. **TI** Incomplete Contracting and Price Regulation. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/593; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 17. **PR** no charge. **JE** D23, L14, L51, O21. **KW** Regulation. Incomplete Contracts. Hold-Up Problem. Renegotiation. Development.

AB This paper deals with price regulation of a monopolistic distribution grid, which sells a license to some retailer. The regulator aims at attaining efficient sale of the license and efficient relationship- specific investments of the agents. The first best can be attained by a sequential regulatory mechanism which gives the seller an option to grant the license but allows the buyer to make counteroffers. This sequential mechanism runs counter to the usual price-cap idea since possible upward but never downward renegotiation of the regulated prices is the vehicle to attain the first best.

PD April 1999. **TI** Earmarked Taxation: Welfare versus Political Support. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/594; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 22. **PR** no charge. **JE** D82, E62, H21, J21. **KW** Earmarking. Efficient Taxation. Asymmetric Information. Public Finance. Agency Problems.

AB Compared with the traditional public-finance approach of a monolithic fully informed planner, earmarking of taxation is less likely to be optimal if a principal-agent setting is considered, where taxing and spending are performed by two separate agents, which are monitored by the parliament. We assume that the parliament either maximizes welfare or expected votes. Vote maximizers are more inclined to choose earmarking, but at the price of inefficiently high cost.

Boscolo, Marco

PD May 1998. **TI** Discounting Costs and Benefits in Carbon Sequestration Projects. **AU** Boscolo, Marco; Vincent, Jeffrey R.; Panayotou, Theodore. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 638; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 21: **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D61, D90, H43, Q23. **KW** Discounting. Carbon Sequestration. Forestry. Social Discount Rate. Project Evaluation.

AB The desirability of carbon offset projects is often expressed in terms of "dollars spent per tons of carbon sequestered." The inconsistent way in which this summary statistic has been derived prevents a direct comparison of alternative carbon offset projects. This inconsistency centers on how intertemporal carbon flows are being accounted for. This paper addresses the issues of selecting the social discount rate and of accounting for intertemporal carbon flows in the case of carbon sequestration projects. The authors' concern is to ensure that analyses of different projects are comparable, and thereby the socially most desirable projects can be identified accurately. The authors review four main methods that are available to derive an estimate of the social discount rate and recommend using either the shadow-price or weighted-average method. On the issue of carbon accounting the authors conclude that discounting should be applied to carbon flows as well as monetary flows.

Boucekkine, Raouf

PD 1999. **TI** Endogenous Vs. Exogenously Driven Fluctuations in Vintage Capital Models. **AU** Boucekkine, Raouf; Del Rio, Fernando; Licandro, Omar. **AA** Boucekkine: IRES, UCL. Del Rio: CEPREMAP. Licandro: FEDEA. **SR** CEPREMAP Discussion Paper: 9901; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 26. **PR** between 25-35 francs. **JE** C63, E22, E32, O40. **KW** Vintage Capital. Replacement Echoes. Differential-Difference Equations. Floquet Representations.

AB In this paper, we present a simple vintage capital growth

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model in which both exogenous and endogenous fluctuations sources are present. Indeed, it can be seen as a particular case of Cabellero and Hammour (1996)'s creative destruction model, with the advantage that analytical characterization of the short run and asymptotic dynamics is partially allowed. In particular, we show that job creation follows a delayed-differential equation with periodic coefficients. The delay is equal to the optimal age of capital goods, and can be taken as a measure of the periodicity of the endogenous replacement echoes inherent to vintage models. The period of the coefficients is equal to the period of an exogenous profitability cycle. We mathematically show that job creation is asymptotically periodic, with the same period as the profitability cycle. Furthermore using an explicit numerical method, we find that replacement echoes generally dominate the short run dynamics. Finally, we find that the combination of the two fluctuations sources favors the appearance of asymmetries in job creation and job destruction patterns.

Bovenberg, A. Lans

PD September 1998. **TI** Tax Reform and the Dutch Labour Market: An Applied General Equilibrium Approach. **AU** Bovenberg, A. Lans; Graafland, Johan J.; de Mooij, Ruud A. **AA** Bovenberg: Netherlands Central Planning Bureau. Graafland and de Mooij: CPB Netherlands Bureau for Economic Policy Analyis. **SR** Centre for Economic Policy Research Discussion Paper: 1983; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 108. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D58, E62, J22, J41, J64. **KW** Tax Policies. Structural Unemployment. Labor Supply. General Equilibrium. The Netherlands.

AB This paper employs MIMIC, an applied general equilibrium model of the Dutch economy, to explore various tax cuts aimed at combating unemployment and raising labor supply. MIMIC combines modern labor- market theories, a firm empirical foundation, and a detailed description of Dutch labor-market institutions. The authors develop a small aggregate model, which contains the core of MIMIC, namely wage setting, job matching, labor supply and labor demand. In addition to illustrating the main economic mechanisms in MIMIC, the small model shows the advantages of employing a larger, more disaggregated model that accounts for heterogeneity, institutional details, and more economic mechanisms. Targeting in-work benefits at the low skilled is the most effective way to cut economy-wide unemployment but damages the quality and quantity of labor supply. Cuts in social security contributions paid by employers and subsidies for hiring long-term unemployed reduce unskilled unemployment most substantially.

Boyer, Robert

PD December 1997. **TI** Evolution Des Modeles Productifs Et Hybridation: Geographie, Histoire et Theorie. **AA** CEPREMAP, CNRS and E.H.E.S.S. **SR** CEPREMAP Discussion Paper: 9804; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 65. **PR** between 25-35 francs. **JE** F23, L16, L62, O33. **KW** Industrial Models. Automobile Industry. Japanese Transplants. Lean Production.

AB Will the lean production model be disseminated all over the world by Japanese transplants? This paper assesses the likelihood of such a process. From a theoretical point of view, the superiority of a productive model is rarely absolute, but depends on the domestic price system, the stratification of demand, and industrial relations. Within a coherent industrial model, managerial tools are largely complementary, innovations are largely local, incremental and cumulative. Therefore the same industrial model might not at all be suited to other domestic contexts. Thus the diffusion of a given industrial model is the exception and not the rule. A precise set of definitions about the nature, extension and performance of hybridization are provided and then used in order to diagnose the coexistence of five configurations for the automobile transplants in Europe, North America and Asia. More competition does not necessarily lead to convergence toward a single best way, since each model performance is largely specific to domestic context which remains rather different.

PD 1998. **TI** Polity in the Era of Global Finance: Recent Advances in "Regulation" Theory. **AA** CEPREMAP, CNRS, E.H.E.S.S. **SR** CEPREMAP Discussion Paper: 9820; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 76. **PR** between 25-35 francs. **JE** E19, G15, L51, P16. **KW** Regulation Theory. Financial Regime. Institutional Forms. Growth.

AB This paper uses recent advances in "Regulation" theory in order to investigate the macroeconomic evolution of the 90's. These advances include a better understanding of the links between polity and economy, the role of the complementarity and hierarchy of institutional forms in the viability of accumulation regime, the endogenous shift from growth to crisis, and a new analysis of the Nation-State facing larger international interdependence. Thus, globalization is mainly a financial matter and expresses a political project, not an economic determinism. The so-called return to the market has not delivered the expected rise in dynamic efficiency. The long term viability of various brands of capitalism is related to the international transformations and the strategies followed by national governments, and not to pure efficiency criteria. Finally, the stability of a growth regime built upon the domination of finance requires precise conditions, and from an empirical point of view, many evidences for structural limits can be perceived since the summer of 1997.

PD 1998. **TI** The Contemporary Japanese Crisis and the Transformations of the Wage Labor Nexus. **AU** Boyer, Robert; Juillard, Michel. **AA** Boyer: CEPREMAP, CNRS, E.HE.S.S. Juillard: University de Paris VIII, CEPREMAP. **SR** CEPREMAP Discussion Paper: 9822; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 70. **PR** between 25-35 francs. **JE** E24, J24, N15, O33. **KW** Industrial Relations. Employment Outcomes. Japanese Recessions. Regulation Theory.

AB This paper surveys the main research findings on the specificity of the Japanese "regulation" mode and growth pattern (with a special emphasis upon the wage labor nexus), compares the recession which began in 1991 with the previous ones, and finally analyzes the institutional transformations taking place during the 90's. Even if mass production and consumption do characterize the Japanese economy, the wage labor nexus is built upon an implicit compromise regarding employment stability, at odds with a typical Fordist one. The contemporary stagnation and uncertainty do not originate from this wage labor nexus being different from the American one, but from the de-synchronization of the whole institutional architecture built after WW II and reformed after the first oil shock, under the pressures of a changing international

environment and financial liberalization. The Japanese wage labor nexus allows a lot of flexibility and has been adapting throughout the 90's and is far from being the weakest institutional characteristic. Clearly, the growth pattern itself is challenged by its very success in catching up and is destabilized by a partial financial liberalization. Until now no alternative domestic-led pattern has been found, and political leadership and "vision" are severely lacking.

PD January 1998. **TI** Success and Misfortune of the French Industry: 1945-1995. Rise and Demise of a State-Led Fordist Industrialisation. **AA** CEPREMAP, CNRS and E.H.E.S.S. **SR** CEPREMAP Discussion Paper: 9805; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 37. **PR** between 25-35 francs. **JE** L52, L60, N14, O33. **KW** Long-Term Growth. Technical Change. Fordism. France.
AB This paper challenges the idea that "France would not be gifted for modern industry". From a theoretical standpoint, new endogenous growth theory suggests that there are several trajectories for industrialization, given the externalities that are typical to technical change, and this could explain the French "exceptionalism" by comparison with England and U.S. Long run economic history shows that periods of successful industrialization have usually been followed by relative stagnation, a result of the fit between the national institutionalized compromises, the leading productive paradigm and the international regime. Thus, the same public interventions that propelled the industrialization during the Fordist era have been inhibiting the redeployment of the French industry in the new context of the Eighties and Nineties. This does not imply necessarily that this evolution will continue during the next century.

PD August 1998. **TI** An Essay on the Political and Institutional Deficits of the Euro. The Unanticipated Fallout of the European Monetary Union. **AA** CEPREMAP, CNRS, E.H.E.S.S. **SR** CEPREMAP Discussion Paper: 9813; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 127. **PR** between 25-35 francs. **JE** E42, E58, E61, F02, J53. **KW** Euro. Regulation Modes. Monetary Regimes. Institutional Economics.
AB The Euro is an unprecedented innovation, which can only partially be analyzed with the theory of optimal monetary zones and other conventional approaches. It calls for an analysis integrating three domains: the change in the rules of the game at the European level, their impact upon the national institutional architecture and "regulation" modes, and the transformation of the domestic political arena. Various interpretations can be given to the Amsterdam Treaty and its implementations, the more so since the new institutional architecture is far from coherent, but on the contrary, is prone to political conflict and economic unbalance. A survey of the literature delivers a method for generating a spectrum of scenarios by combining three major hypotheses: the ex post objectives pursued by the European Central Bank, the budgetary and political innovation produced in reaction to the Euro, and the unequal ability of different societies to be reformed in line with the constraints and opportunities generated by the European Monetary Union. The political and institutional deficits of the Amsterdam Treaty give a low probability to either totally rosy or totally gloomy scenarios, but open a quite uncertain process of trials and errors with possibly radical innovations.

PD September 1998. **TI** The Link Wage/Employment and "Regulation" Theory: As Many Relations as Institutional Architectures. **AA** CEPREMAP, CNRS, and E.H.E.S.S. **SR** CEPREMAP Discussion Paper: 9814; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 68. **PR** between 25-35 francs. **JE** E24, J41, J50, O11. **KW** Employment and Wages. Institutions. Regulation Theory. Wage-Labor Nexus.
AB Contemporary research is built upon a strong substitutability between labor and capital in response to the signals of relative prices, especially from the labor market. "Regulation theory" incorporates the rough complementarity of production factors, and proposes the notion of wage labor nexus in order to capture the density of institutions and coordinating mechanisms, other than price, which govern labor adjustment. Thus as many wage/employment elasticities are observed as institutional architectures. This link was positive within the Fordist growth regime, but it may be negative for small open economies under strong external competition. The paper provides a panorama of results from long-run historical studies, international comparisons, and micro and macro models. Four wage labor nexuses (competitive, Fordist, meso-corporatist and social-democrat) exhibit contrasted elasticities. Under the pressures of globalization and financial liberalization, the elasticity may turn from positive to negative for the same economy. Finally, the primacy of coordinating procedure over technological substitutability or complementarity can be demonstrated analytically. Thus, in order to fight unemployment, it seems more promising to analyze emerging wage labor nexuses and growth patterns than to promote a massive reduction in the costs of labor, with uncertain and modest outcomes.

Boyle, Kevin J.

TI Narrow Choice Sets in Random Utility Models of Recreation Demand. **AU** Parsons, George R.; Plantinga, Andrew J.; Boyle, Kevin J.

Brenner, Menachem

PD March 1999. **TI** The Price of Options Illiquidity. **AU** Brenner, Menachem; Eldor, Rafi; Hauser, Shmuel. **AA** Brenner: New York University. Eldor: The Arison Business School. Hauser: Ben Gurion University. **SR** New York University, Salomon Center Working Paper: S/99/13; 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, F31, G13. **KW** Currency Options. Option Pricing. Liquidity.
AB The purpose of this paper is to examine the effect of illiquidity on the value of currency options. We use a unique data set which allows us to explore this issue in special circumstances where options are issued by a central bank and are not traded prior to maturity. The value of these options is compared to similar options traded on the exchange. We find that the non-tradable options are priced about 21% less than the exchange traded options. It is an anomaly that cannot be explained by non-hedgeable risks like jumps in the prices of the liquid options which we use in replicating the payoffs of the illiquid options.

Brocas, Isabelle

TI A Theory of Haste with Applications to Construction of

Nuclear Power Plants and Extinction of Endangered Species. AU Carrillo, Juan D.; Brocas, Isabelle

Brown, D.

TI Minimum-Cost Portfolio Insurance. AU Aliprantis, C. D.; Brown, D.; Werner, J.

Brown, William

PD September 1998. TI Individualisation and Union Recognition in Britain in the 1990s. AA University of Cambridge. SR University of Cambridge, ESRC Centre for Business Research Working Papers: WP 104; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. PG 28. PR $10.00 (5 pounds); checks payable to University of Cambridge. JE J31, J51, J53, J58. KW Individualization. Employment Contracts. Union Recognition. Flexible Working. Collective Bargaining.

AB This paper examines the way in which the employment relationship has been "individualized" in Britain during the 1990s. In practice, individualization has been almost exclusively concerned with procedural issues rather than with the substantive content of employment contracts. The research was based on a study of 32 firms, structured so that some which had derecognized trade unions were matched with others, in similar product "niches" which had retained recognition. There were many similarities in the economic efficiency of the matched pairs, partly because, where recognition had been retained, its scope had been substantially reduced. The contrasts thrown up by the matched comparisons were to do with the mechanisms for employee involvement and the consequential legitimation of management action. The paper discusses the implications for the future of collective bargaining at a time when the new Labor Government is proposing limited statutory recognition rights for trade unions.

Buiter, Willem H.

PD April 1999. TI Alice in Euroland. AA University of Cambridge, London School of Economics, Centre for Economic Policy Research and National Bureau of Economic Research. SR London School of Economics, Centre for Economic Performance Discussion Paper: 423; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. PG 24. PR 5 pounds for individual copies; 95 pounds for yearly subscription. JE E58, E63, F36. KW Economic Union. Monetary Union. Europe. Central Bank.

AB The paper contains a detailed critique of the common currency arrangements of the Economic and Monetary Union, embodied in the laws and emerging procedural arrangements that govern the actions of its key institutions: the European Central Bank and the European System of Central Banks. The main message here is "Great idea, shame about the execution". A number of improvements are then proposed. Some of these require amending the Treaty, including an end to the rule that each EMU member's national central bank has a seat on the Governing Council or the removal of the power of the Council of Ministers to give "general orientations" for exchange rate policy. Others, notably in the areas of accountability, openness and transparency, could be implemented immediately, including publication of voting records, minutes and the inflation forecast. Improved arrangements are also advocated for the co- ordination of monetary and fiscal policy. And the article calls for a European Parliament that can both bark and bite.

PD May 1999. TI UDROP: A Small Contribution to the New International Financial Architecture. AU Buiter, Willem H.; Sibert, Anne. AA Buiter: University of Cambridge and London School of Economics. Silber: Birkbeck College and London School of Economics. SR London School of Economics, Centre for Economic Performance Discussion Paper: 425; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. PG 15. PR 5 pounds for individual copies; 95 pounds for yearly subscription. JE F31, F33, F34, G13. KW Liquidity Crisis. Foreign Debt. Debt Rollover. Contingent Credit.

AB The purpose of the Universal Debt Rollover Option with a Penalty (UDROP) proposal is to prevent debt rollover crises for foreign- currency-denominated debt instruments. The 'pure' version of the option would entitle the borrower to extend or roll over his performing debt at maturity for a specified period, while the pricing of the option would be left to the contracting parties. Variations are considered which make the borrower's ability to exercise his option contingent on the prior declaration of a state of "disorderly markets". In all versions of the scheme, no commitment of public money is required, either by national governments or by international agencies such as the International Monetary Fund or the World Bank. The UDROP proposal is rule-based and general: it is mandatory for all foreign-currency debt and automatic. It is exercised at the discretion of the borrower. This stands in sharp contrast to the current practice of discretionary and politicized refinancing arrangements cobbled together in an ad-hoc manner on a case-by-case basis by the International Monetary Fund. UDROP is market- oriented: the terms and conditions on any foreign-currency loan and associated rollover option would be negotiated by the lenders and borrowers.

Bunnagel, Ursula

PD 1998. TI Efficient Implementation of the Goldberg-Tarjan Minimum-Cost Flow Algorithm. AU Bunnagel, Ursula; Korte, Bernhard; Vygen, Jens. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98868; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. PG 13. PR no charge. JE C45, C60, L20. KW Cost-Scaling Algorithm. Implementation. Network Flow. Minimum-Cost Flow.

AB The cost-scaling algorithm of Goldberg and Tarjan (1990) is known to be one of the most efficient algorithms for minimum-cost flow problems. However, its efficiency in practice depends on many implementation aspects. Moreover, the inclusion of several heuristics improves its performance drastically. This paper addresses important implementation aspects and describes the most efficient heuristics. Experimental results also highlight the effect of combining several heuristics.

Burchell, Brendan J.

PD June 1998. TI The Unequal Distribution of Job Insecurity, 1966-1986. AA University of Cambridge. SR University of Cambridge, ESRC Centre for Business Research Working Papers: WP 88; Centre for Business

Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 28. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D63, J10, J28, J62, J71. **KW** Job Insecurity. Job Mobility. Employment. Labor Markets.

AB The paper presents research evidence on the costs of job insecurity in terms of workers' psychological health, marriages and motivation, and contribution to "cycles of disadvantage". It also analyses flows out of secure and insecure jobs within British labor markets using a work- histories data set. Flows from secure to insecure jobs were more common in the 1980s than previously, while the risk of transition to an insecure job is much greater for those in less advantaged jobs. The negative consequences of this for further polarization of the UK labor market are discussed.

Burda, Michael C.

PD October 1998. **TI** Globalization and European Labour Markets. **AU** Burda, Michael C.; Dluhosch, Barbara. **AA** Burda: Humboldt Universitat zu Berlin. Dluhosch: Universitat zu Koln. **SR** Centre for Economic Policy Research Discussion Paper: 1992; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F15, J23, J64, L23, O33. **KW** Labor Markets. International Trade. Organization of Production. Technology Choice. Division of Labor.

AB This paper examines the linkage between trade and the dismal state of labor markets in Europe. On the face of superficial evidence, the nexus is weak and is overshadowed by more compelling evidence of skill-biased technical change. Yet a complete dismissal of globalization is inconsistent with current opinions of businessmen, policy-makers and workers in globalized industries. The authors propose an alternative model in which globalization occurs along with deterioration of labor market prospects. The authors model both the fragmentation of production and resulting reallocation of economic activity across national boundaries as equilibrium responses to trading opportunities as well as the technology of production. Increasing integration is therefore linked to both trade as well as pervasive skill-biased technical change. The model's predictions are consistent with a number of outstanding empirical puzzles in the trade-wages debate and can also explain the bimodal growth in services observed in all OECD countries.

Burgess, Simon

PD March 1999. **TI** The Reallocation of Labour: An International Comparison Using Job Tenure Data. **AA** University of Bristol and London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 416; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 27. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** J21, J63, J64, J68. **KW** Labor Reallocation. Job Tenure. Trainability. Employment Protection.

AB This paper sets out the issues surrounding the optimal amount of job reallocation. The key factors are the trainability of the workforce, the volatility of demand and the cost of contract termination. The paper uses an international dataset to characterize the nature of labor reallocation and to isolate the effect of country-specific factors. We investigate the extent to which these country differences can be explained by the trainability of the workforce and employment protection legislation. We find that both of these have a significant role to play in affecting the reallocation of labor. In addition, we show that the impact of the country-specific factors varies dramatically by age and industry: much larger differences are found among older workers than younger ones, and in retail trade than in manufacturing.

Burguet, Roberto

TI Golden Cages for Showy Birds: Optimal Switching Costs in Labour Markets. **AU** Caminal, Ramon; Matutes, Carmen; Burguet, Roberto.

Burke, Jim

PD January 1998. **TI** Divestiture as an Antitrust Remedy in Bank Mergers. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/14; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 23. **PR** no charge. **JE** G21, G28, G34, L40. **KW** Bank Mergers. Antitrust. Divestitures. Banking.

AB The purpose of this study is to determine whether, from a public policy standpoint, divestitures constitute an effective antitrust remedy in bank merger cases. A number of findings emerge from the study: Divested branches have a remarkable survival record; structural changes effected by divestitures tend to persist over time; larger buyers of divested branches tend to be more successful than smaller buyers; divestiture of the target institutions' branches rather than those of applicants has proven preferable from an antitrust standpoint; and divested branches selected by the Department of Justice have not performed better than others. The findings suggest that divestitures of bank offices have generally provided an effective public policy remedy.

Burnside, Craig

PD November 1998. **TI** Prospective Deficits and the Asian Currency Crises. **AU** Burnside, Craig; Eichenbaum, Martin; Rebelo, Sergio. **AA** Burnside: University of Pittsburgh. Eichenbaum: Northwestern University. Rebelo: Northwestern University. **SR** Centre for Economic Policy Research Discussion Paper: 2015; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 60. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E44, F31, F32, F36, H62. **KW** Currency Crisis. Banking Crisis. Speculative Attacks. Deficits. Asia.

AB This paper argues that the recent Southeast Asian currency crises were caused by large prospective deficits associated with implicit bailout guarantees to failing banking systems. The authors articulate this view using a simple dynamic general equilibrium model whose key feature is that a speculative attack is inevitable once the present value of future government deficits rises. While the government cannot prevent a speculative attack, it can affect its timing. The longer the delay, the higher inflation will be under flexible exchange rates. The authors present empirical evidence in support of the three key assumptions: (i) that foreign reserves did not play a special

role in the timing of the attack; (ii) that large losses in the banking sector were associated with large increases in governments' prospective deficits; and (iii) that the public knew that banks were in trouble before the currency rate crises.

Burridge, Peter

PD May 1999. **TI** On Regression-Based Tests for Seasonal Unit Roots in the Presence of Periodic Heteroscedasticity. **AU** Burridge, Peter; Taylor, A. M. Robert. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 99/10; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 17. **PR** 2 pounds ($4); no charge to academics. **JE** C15, C22. **KW** Seasonality. Unit Roots. Periodic Heteroscedasticity. Brownian Motion.

AB In this paper we analyze the behavior of regression-based tests for seasonal unit roots when the error process is periodically heteroscedastic. We show, using the case of quarterly data to illustrate, that the limiting null distributions of tests for unit roots at the zero and Nyquist frequencies are unaffected by the presence of periodic heteroscedastic behavior in the error process. Tests at the harmonic seasonal frequencies are shown to be either unaffected or to display a discrete shift in their limiting distribution, depending on the specific nature of the periodic heteroscedasticity. In extreme cases certain of these limiting distributions are shown to be degenerate while others are known functions of the well-known Dickey-Fuller distributions. Monte Carlo evidence demonstrates that the asymptotic theory developed in this paper provides a very good prediction for the finite sample behavior of the unit root test statistics.

Bussiere, Matthieu

PD April 1999. **TI** Political Instability and Economic Vulnerability. **AU** Bussiere, Matthieu; Mulder, Christian. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/46; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 17. **PR** not available. **JE** E32, E44, E63, F31, F47. **KW** Vulnerability Indicators. Political Cycles. Financial Crises. Emerging Markets. Currency Crises.

AB This paper analyzes and tests the influence of political instability on economic vulnerability in the context of the 1994 and 1997 crisis episodes. It constructs four political variables that aim at quantifying political instability. The paper finds that for countries with weak economic fundamentals and low reserves, political instability has a strong impact on economic vulnerability. The estimation results suggest that including political variables in economic models does improve their power to explain and predict economic crises. The paper concludes that countries are more economically vulnerable during and especially following election periods, and when election results are less stable, than at other times.

Cadle, P. J.

PD April 1998. **TI** Yield Spreads and Short-Term Interest Rate Movements in the Tokyo Money Market and the Actions of the Bank of Japan: November 1993 to March 1996. **AU** Cadle, P. J.; Ford, J. L.; Kataoka, Yukie. **AA** Cadle and Ford: University of Birmingham. Kataoka: Deutsche Bank. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/11; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 36. **PR** 2 pounds ($4); no charge to academics. **JE** E43. **KW** Short-Term Interest. Yield Spreads. Settlement Day. Expectations Theory.

AB This paper evaluates the predictive power of the term structure of short-term interest rates in the Tokyo money market. The econometrics show that the information contained in yield spreads affects the average short-term interest rates up to only three months at best. In addition, few "settlement day" effects are discovered. This seems to be attributable to the fact that financial institutions accumulated "required balances" and to the Bank of Japan's frequent recourse to market operations in an endeavor to control short-term interest rates. An additional conclusion is that the evidence in favor of the expectations theory of the term structure of interest rates as such is mixed. It cannot be corroborated since the slope coefficient in the key relationship differs (almost invariably) significantly from unity, except when allowance is made for settlement days.

Cadot, Olivier

PD October 1998. **TI** Harmonizing External Quotas in a FTA: A Step Backward? **AU** Cadot, Olivier; de Melo, Jaime; Olarreaga, Marcelo. **AA** Cadot: INSEAD. de Melo: World Bank. Olarreaga: University of Geneva. **SR** Centre for Economic Policy Research Discussion Paper: 2002; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F11, F13, F15, F42. **KW** Free Trade Agreements. Quotas. Political Economy. Commercial Policy. Economic Integration.

AB This paper explores how political-economy forces shape quantitative barriers against the rest of the world in a FTA. We show that whereas the dilution of lobbying power in a FTA typically leads to a relaxation of external quotas, this result is likely to be overturned as integration deepens. In particular, we show that cooperation among member countries on the level of their external quotas, cross-border lobbying by import-competing interests in the free-trade area and the consolidation of national external quotas into a single one, all lead to stiffer restrictions against imports from the rest of the world. We also show that unlike tariffs, endogenous quotas are not crucially affected by the presence of rules of origin.

Calamitsis, Evangelos A.

PD April 1999. **TI** Adjustment and Growth in Sub-Saharan Africa. **AU** Calamitsis, Evangelos A.; Basu, Anupam; Ghura, Dhaneshwar. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/51; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 18. **PR** not available. **JE** C23, F43, O11, O40, O55. **KW** Growth. Panel Data. Development. Africa.

AB This paper analyzes the factors affecting economic growth in sub- Saharan Africa, using data for 1981-97. The results indicate that per capita real GDP growth is positively influenced by economic policies that raise the ratio of private investment to GDP, promote human capital development, lower the ratio of the budget deficit to GDP, safeguard external competitiveness, and stimulate export volume growth. The favorable evolution of these variables played an important role in the region's apparent post reform recovery of 1995-97. The

paper also discusses a policy framework to promote sustainable economic growth and reduce poverty in sub-Saharan Africa.

Cameron, Gavin

PD June 1999. **TI** Productivity Growth, Convergence and Trade in a Panel of Manufacturing Industries. **AU** Cameron, Gavin; Proudman, James; Redding, Stephen. **AA** Cameron: Nuffield College. Proudman: Bank of England. Redding: London School of Economics and Centre for Economic Policy Research. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 428; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 34. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** F43, O33, O47, O57. **KW** Technology Transfer. International Trade. Growth Accounting. Convergence.

AB This paper analyzes the determinants of productivity growth in a panel of UK manufacturing industries. Two potential sources of productivity growth are identified: domestic innovation and technology transfer from a frontier economy. We examine the roles played by Research & Development expenditure and international trade in explaining each source of productivity growth. Research & Development expenditure is found to raise the domestic rate of innovation, while international trade facilitates the transfer of technologies to the non-frontier economy.

Caminal, Ramon

PD February 1999. **TI** Golden Cages for Showy Birds: Optimal Switching Costs in Labour Markets. **AU** Caminal, Ramon; Matutes, Carmen; Burguet, Roberto. **AA** Institut d'Analisi Economica. **SR** Centre for Economic Policy Research Discussion Paper: 2070; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 dollars or 8 dollars or 8 euros. **JE** J41, J44, J62, L14, L42. **KW** Labor Contracts. Buy-Out Fees. Severance Payments. Adverse Selection. Job Mobility.

AB Why do some workers sign contracts with high quitting penalties? Are these restrictions on the workers' mobility perverse for efficiency or workers' welfare? We postulate an answer that hinges on the degree of observability of the worker's performance by alternative employers. When performance is privately observed by the employer, then alternative employers face an adverse selection problem when competing for the worker. In equilibrium separations take the form of layoffs with compensation to the worker with no role for quitting fees. However, if performance is quite public this adverse selection problem is absent and buy-out fees serve to appropriate alternative employer's rents from the reallocation of the worker. In this case, efficiency is not affected. Bargaining power (both before and after signing the contract) determines whether buy-out fees are detrimental or not to the worker's welfare.

Canova, Fabio

PD November 1998. **TI** Did You Know that Monetary Disturbances Matter for Business Cycles Fluctuations? Evidence from the G-7 Countries. **AU** Canova, Fabio; De Nicolo, Gianni. **AA** Canova: Universitat Pompeu Fabra. De Nicolo: Brandeis University. **SR** Centre for Economic Policy Research Discussion Paper: 2028; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** C68, E31, E32, E52, F11. **KW** Structural Shocks. Business Cycles. Monetary Models. Dynamic Correlations. Inflation.

AB This paper examines the question of which shock generates cyclical movements in output and inflation using an alternative approach. We find that in the G-7 countries output cycles are driven by different structural disturbances, that monetary disturbances play a significant role in at least four of the seven countries and that the dominant cause of output innovations within countries has changed after 1982. Inflation cycles are much more homogeneous across countries and are driven by a combination of supply and monetary disturbances. The disturbances we have identified explain large portions of output and inflation cycles, but are not a major cause of fluctuations in financial and money markets. The theoretical and policy implications of the findings are discussed.

PD December 1998. **TI** The Macroeconomic Effects of German Unification: Real Adjustments and the Welfare State. **AU** Canova, Fabio; Ravn, Morten O. **AA** Canova: Universitat Pompeu Fabra. Ravn: University of Aarhus. **SR** Centre for Economic Policy Research Discussion Paper: 2038; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** B41, E22, E32, J61. **KW** Redistribution. Currency Parity. Wage Parity. Subsidies. Tax Incentives.

AB We study the effects of German unification on macroeconomic variables in a model with capital accumulation, skill differences and a welfare state. The integration of two economies differing in capital holdings and skill distribution is similar to a mass migration of low-skilled agents holding no capital into a foreign country. In the absence of a welfare state, capital holders benefit over the business cycle and depressive long-run consequences ensue. With a welfare state depressive long-run effects are amplified. We examine two policies which may reduce the negative long-run effects. Open economy and sticky wages extensions are considered.

PD December 1998. **TI** Crossing the Rio Grande: Migrations, Business Cycles and the Welfare State. **AU** Canova, Fabio; Ravn, Morten O. **AA** Canova: Universitat Pompeu Fabra. Ravn: University of Aarhus. **SR** Centre for Economic Policy Research Discussion Paper: 2040; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D60, E32, E62, F22, H23. **KW** Migration. Welfare State. Business Cycles. Heterogeneous Agents. Taxation.

AB This paper studies the macroeconomic effects of an inflow of low- skilled workers into an economy where there is capital accumulation, endogenous labor supply and heterogeneous workers. We find substantial dynamic effects, with adjustments that resemble those triggered by a sudden disruption of the capital stock and significant long-run changes. We examine the interactions between migration and three different redistribution systems and find that these schemes change the dynamics and lead to prolonged periods of adjustments. The aggregate welfare implications of migration are sensitive to the redistribution system. Without redistribution there are gains and when the state engages in redistribution gains disappear and different types of agents bear

the costs.

Card, David

TI Changes in the Relative Structure of Wages and Employment: A Comparison of Canada, France and the United States. **AU** Kramarz, Francis; Card, David; Lemieux, Thomas.

Cardarelli, Roberto

PD March 1998. **TI** Financial Integration and Monetary Competition. **AU** Cardarelli, Roberto; Vidal, Jean-Pierre. **AA** Cardarelli: Churchill College. Vidal: University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9810; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 22. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D91, E42, E61, F36. **KW** Money. Overlapping Generations. Seigniorage. Public Good.

AB This paper constructs a two-country overlapping generations model with two distinct fiat monies in which seigniorage revenues are used to finance a local public good. Countries differ both in endowments and in the preference for the public good. Under perfect mobility of financial assets, benevolent governments choose their rates of growth of money supply strategically and private individuals have perfect foresight. The authors characterize the equilibrium of the policy game and show how the degree of financial integration affects the welfare of each country. They then consider a currency union and characterize the minimal weights each country would require in the union's social welfare function to relinquish its monetary power.

Caroli, Eve

PD April 1998. **TI** Education, Training, and Growth Regimes in Five OECD Economies. **AA** Ecole Normale Superieure. **SR** CEPREMAP Discussion Paper: 9807; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 36. **PR** between 25-35 francs. **JE** I21, J31, J24, O33. **KW** Training. Intermediate Skills. Growth. Technical Change.

AB This article proposes a formal analysis of the relationship between education and training (E&T) and economic growth in Germany, France, Japan, Great Britain and the United States. The analysis focuses on intermediate skills and the highly institutional nature of this variable. Indeed, it is determined by the characteristics of two major institutions: the national skill producing system and the wage-labor nexus, which articulate into a "skill-labor nexus". The paper proposes a kaldorian model of economic growth which shows that an efficient skill- labor nexus positively influences the rhythm of economic growth in the five counties considered. Moreover, a detailed analysis of the mechanisms at work in the model allows for the characterization of national growth regimes in each country. Comparative statics are then used to evaluate the influence of skill-labor nexus parameters on national growth performances when the technological paradigm is changing. First, it is shown to have a positive impact on the growth potential for the five countries under study. Second, the change in the technological paradigm increases the relative advantage from an efficient skill-labor nexus. Therefore, countries lagging in E&T could see their relative position deteriorate in terms of growth.

Carrillo, Juan D.

PD November 1998. **TI** Self-Control, Moderate Consumption and Craving. **AA** ECARE. **SR** Centre for Economic Policy Research Discussion Paper: 2017; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** A12, D83, D91, E21, I18. **KW** Hyperbolic Discounting. Learning. Self-Knowledge. Consumption. Craving.

AB We analyze the consumption strategy of a dynamically inconsistent individual for goods that provide an immediate benefit and a delayed cost. The agent has incomplete information on the cost inherent to each unit of consumption and partially learns this value anytime he consumes. We show that, by fear of overconsuming indefinitely, the agent may (optimally) decide to abstain after some periods, even in cases where moderate consumption always dominates abstention. This provides a rationale for why dieters, former smokers, or gamblers stick to strict personal rules of behavior, such as total abstention, without invoking standard addiction arguments. We also study how urges modify the strategy of the agent and analyze some policy implications. Last, applications of this theory to other issues such as self-knowledge, willpower and habit formation are discussed.

PD November 1998. **TI** A Theory of Haste with Applications to Construction of Nuclear Power Plants and Extinction of Endangered Species. **AU** Carrillo, Juan D.; Brocas, Isabelle **AA** ECARE. **SR** Centre for Economic Policy Research Discussion Paper: 2027; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** A12, D83, D92, Q20. **KW** Time Inconsistency. Haste. Investment. Uncertainty. Environmental Management.

AB This paper considers the decision of an agent with time inconsistent preferences to undertake an irreversible investment that yields an uncertain current benefit and a delayed cost. The authors show that, if the flow of information revealed between periods when the investment is postponed is sufficiently high, there is an expected positive information value of waiting. Hence, as under time consistency, only projects with positive Net Present Value (NPV) are initiated. By contrast, if the amount of information transmitted is small, the agent's expected information value of waiting is negative, and an individual may rationally decide to undertake an investment with negative NPV, only to prevent a future investment profitable from a future perspective but highly detrimental from the current viewpoint. The authors argue that this provides a rationale for haste. Some applications of the authors' theory are discussed, such as impulse buying, environmental destruction and preservation of endangered species.

Casamatta, Georges

PD June 1998. **TI** On The Political Sustainability of Redistributive Social Insurance Systems. **AU** Casamatta, Georges; Cremer, Helmuth; Pestieau, Pierre. **AA** Casamatta: Universite de Toulouse and Universite de Liege. Cremer: Universite de Toulouse and Institut Universitaire de France. Pestieau: Universite de Liege, Universite Catholique de Louvain and Delta. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9838; 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** 29. **PR** $100 per year. **JE** H51, H53, H55, I38. **KW** Social Insurance. Private Insurance. Redistribution. Welfare.

AB The authors consider social insurance schemes with a two-part benefit formula: a flat (constant) term and a variable term which is proportional to individuals' contributions. The factor of proportionality defines the type of social insurance. The authors adopt a two-stage political economy approach. First, the type of social insurance is chosen "behind the veil of ignorance", according to the Rawlsian or the Utilitarian criterion. At this stage, private insurance can be prohibited or allowed. Second, tax rate and benefit level are chosen by majority voting. Three main results emerge. First, it may be appropriate to adopt a system which is less redistributive than otherwise optimal, in order to ensure political support for an adequate level of coverage in the second stage. Second, supplementary private insurance may increase the welfare of the poor. Third, the case for prohibiting private insurance may become stronger when the efficiency of private insurance markets increases.

Casella, Alessandra

PD September 1998. **TI** Overcoming Informational Barriers to International Resource Allocation: Prices and Group Ties. **AU** Casella, Alessandra; Rauch, James E. **AA** Casella: Columbia University. Rauch: U.C. San Diego. **SR** Centre for Economic Policy Research Discussion Paper: 1978; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 56. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D82, F12, F13, F15, F23. **KW** International Trade. Wages. Networks. Incomplete Information. Information Sharing.

AB Incomplete information in the international market creates difficulty in matching agents with productive opportunities and interferes with the ability of prices to allocate scarce resources across countries. Resource-price differentials may not be eliminated and domestic resource supplies may have excessive influence on domestic resource prices. Information-sharing networks among internationally dispersed ethnic minorities or business groups can improve the allocation of resources, though at the same time they may hurt those excluded from the preferential information channels. When ties are denser between countries with small resource price differences than between countries with large resource price differences, however, such networks can worsen the allocation of resources and reduce the value of world output.

Catao, Luis

TI Effective Exchange Rates, 1879-1913. **AU** Solomou, Solomos; Catao, Luis.

Chander, Parkash

PD September 1998. **TI** International Treaties on Global Pollution: A Dynamic Time-Path Analysis. **AA** John Hopkins University and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9854; 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** C70, D50, F42, Q25, Q28. **KW** Transfrontier Pollution. Global Pollution. Coalitions. Treaties.

AB In this paper we show that the formation of coalitions by subsets of countries might diminish the likelihood of a successful world-wide treaty on global pollution. Non-member countries may be less willing to sign a world-wide treaty than they would be in the absence of such coalitions. In fact, the coalition formation may raise the reservation utility of non-member countries above the world-wide treaty level and thus take away their incentives to sign it.

Chatelain, Jean-Bernard

TI Stability Versus Efficiency of the Banking Sector and Economic Growth. **AU** Amable, Bruno; Chatelain, Jean-Bernard; de Bandt, Oliver.

Chemla, Gilles

PD November 1998. **TI** Hold-Up, Industrial Relations and Takeover Threats. **AA** University of British Columbia. **SR** Centre for Economic Policy Research Discussion Paper: 2021; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D23, G31, G34, J51. **KW** Takeovers. Investment. Wage Flexibility. Wage Bargaining. ESOP's.

AB This paper analyses the impact of takeover threats on long-term industrial relations. It argues that takeover threats dramatically affect the way in which an increase in workers' bargaining power affects (under)investment. Without loss of generality, we focus on the particular example of the economic consequences of union power in wage negotiations. In the absence of takeovers, the higher workers' bargaining power, the higher their wage flexibility and effort and the firm's capacity to invest, but the lower the firm's incentive to invest. Under the threat of a takeover reducing their expected wages, the workers' effort and wage flexibility are restricted and decrease with the workers' initial bargaining power. Various takeover defense mechanisms are compared.

TI Dynamic Adverse Selection and Debt. **AU** Faure-Grimaud, Antoine; Chemla, Gilles.

Chen, Shu-Heng

PD February 1999. **TI** Testing for Non-Linear Structure in an Artificial Financial Market. **AU** Chen, Shu-Heng; Lux, Thomas; Marchesi, Michele. **AA** Chen: National Chengchi University. Lux: University of Bonn. Marchesi: University of Cagliari. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/447; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 18. **PR** no charge. **JE** C14, C52, D84, G12. **KW** Financial Markets. Chaos. Non-Linearity. ARCH Models. Stochastic Simulation.

AB The authors present a stochastic simulation model of a prototype financial market. Their market is populated by both noise traders and fundamentalist speculators. The authors' interest is in exploring the behavior of the model when testing for the presence of chaos or non- linearity in the simulated data. First, attempts to determine the fractal dimension of the underlying process give unsatisfactory results. Explicit tests for non-linearity and dependence (the BDS and Kaplan tests) also give unstable results in that both acceptance and rejection of IIDness can be found in different realizations. This behavior is similar to experience collected with empirical data and the results may indicate an explanation of why robustness of

inference in this area is low. However, when testing for dependence in second moments and estimating GARCH models, the results appear much more robust and the chosen GARCH specification closely resembles the typical outcome of empirical studies.

Chen, Yan

PD February 1999. **TI** Asynchrony and Learning in Serial and Average Cost Pricing Mechanisms: An Experimental Study. **AA** University of Michigan. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/592; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 24. **PR** no charge. **JE** C70, C91, D40, D83. **KW** Serial Mechanism. Asynchrony. Learning. Experiments. Pricing.

AB This paper reports the first experimental study of the serial and the average cost pricing mechanism under three different treatments: a complete information treatment and two treatments designed to simulate distributed systems like the Internet with extremely limited information, synchronous and asynchronous moves. Although both games are dominance-solvable and the proportion of equilibrium play is statistically indistinguishable under complete information, their performance does change dramatically in settings that resemble distributed systems: the serial mechanism performs robustly better than the average cost pricing mechanism both in terms of convergence to Nash/Stackelberg equilibrium and system efficiency. These results provide some support for Freidman and Shenker's (1997) new solution concepts for implementation on the Internet. Four payoff-based learning models are simulated in order to understand individual learning behavior in distributed systems. Under the serial mechanism the payoff-assessment learning model (Sarin and Vahid (1997)) provides the best fit to the data.

Cheng, Hsaio

PD November 1998. **TI** Maximum Likelihood Estimation of Fixed Effects Dynamic Panel Data Models Covering Short Time Periods. **AU** Cheng, Hsaio; Pesaran, M. Hashem; Tahmiscioglu, A. Kamil. **AA** Cheng: University of Southern California. Pesaran: University of Cambridge. Tahmiscioglu: University of Wisconsin. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9826; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 27. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C13, C15, C23, C52. **KW** Dynamic Panels. Short Time-Periods. Fixed Effects. Maximum Likelihood.

AB A transformed likelihood approach is suggested to estimate fixed effects dynamic panel data models. Conditions on the data generating process of the exogenous variables are given to get around the issue of "incidental parameters." The maximum likelihood (MLE) and minimum distance estimator (MDE) are suggested. Both estimators are shown to be consistent and asymptotically more efficient than the instrument variable (IV) or generalized method of moment (GMM) estimators. A Hausman-type specification test is suggested to test the fixed versus random effects specification or conditions on the data-generating process of the exogenous variables. Monte Carlo studies are conducted to evaluate the finite sample properties of the MLE, MDE, IV and GMM. It is shown that the likelihood approach appears to dominate the GMM approach both in terms of the bias or root mean squares error of the estimators and the size and power of the test statistics.

Cheron, A.

PD 1999. **TI** Labor-Market Search, Welfare Ranking and the Real Wage Over the Business Cycle. **AU** Cheron, A.; Langot, F. **AA** Cheron: Universite de Paris I and Universite du Maine. Langot: CEPREMAP and Universite du Maine. **SR** CEPREMAP Discussion Paper: 9902; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 22. **PR** between 25-35 francs. **JE** D11, E24, E32, J64. **KW** Preferences. Real Wage. Labor-Market Search. Business Cycle.

AB This paper considers a particular modification of preferences in a dynamic general equilibrium model with labor-market search that implies, despite the efficient risk-sharing, unemployed workers are worse off. The paper shows that this specific assumption is necessary to account for the acyclicity of the real wage and its negative correlation with hours.

PD February 1999. **TI** The Phillips and Beveridge Curves Revisited. **AU** Cheron, A.; Langot, F. **AA** Cheron: Eurequa-Universite de Paris I. Langot: GAINS-Universite du Maine and CEPREMAP. **SR** CEPREMAP Discussion Paper: 9905; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 26. **PR** between 25-35 francs. **JE** E24, E31, E32, J64. **KW** Real Rigidities. Unemployment. Business Cycle. Propagation Mechanisms.

AB This paper studies the cyclical labor market properties of a model which aims to account for the Phillips and Beveridge curves. Monopolistic competition and sticky prices on the goods market are introduced in a labor market search model disturbed by both technological and money supply shocks. We explain the specific propagation mechanisms on the labor market related to money supply shocks and show that they help to understand aggregate labor market dynamics.

Chiappori, Pierre-Andre

PD April 1997. **TI** Testing for Asymmetric Information in Insurance Markets. **AU** Chiappori, Pierre-Andre; Salanie, Bernard. **AA** Chiappori: CNRS, DELTA. Salanie: CREST, CNRS. **SR** Document de Travail du CREST: 9711; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 27. **PR** no charge. **JE** C51, D82, G22. **KW** Econometrics of Insurance. Insurance. Automobile Insurance. Asymmetric Information.

AB While the economics of insurance has made much progress since Rothschild-Stiglitz, economic applications on individual data remain scarce. We argue here that insurance data are particularly well-suited to such empirical investigation. We then use data on contracts and accidents to investigate the extent of asymmetric information in the French market for automobile insurance. Using various parametric and non-parametric methods, we find no evidence for the presence of asymmetric information in this market.

Christoffersen, Peter F.

PD March 1999. **TI** Is Poland Ready for Inflation Targeting? **AU** Christoffersen, Peter F.; Wescott, Robert F. **AA** McGill University. **SR** International Monetary Fund

Working Paper: 99/41; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 29. **PR** not available. **JE** C32, C53, E31, E52. **KW** Leading Indicators. Inflation. Monetary Policy. Transition Economies. Administered Prices.
AB Monetary policymakers in advanced transition economies such as Poland are increasingly interested in how inflation responds to changes in policy instruments and other economic forces. In this paper, measures of underlying CPI inflation based upon optimal trimming concepts are developed. The sensitivity of these CPI measures to changes in a set of 25 policy and economic variables is then studied via Granger causality tests and impulse responses and a multivariate model of CPI inflation is developed. The results show that a core set of variables characterize one-period-ahead underlying inflation moderately well but that statistical linkages are not yet robust.

Christopeit, Norbert

PD March 1996. **TI** Optimal Control of Linear Systems with Time Varying Drift Parameters: The Gaussian Case. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/358; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 19. **PR** no charge. **JE** C22, C60. **KW** Linear Systems. Time Varying. Drift Parameters. Gaussian Case. Markov Processes.
AB This paper considers the optimal control of a linear stochastic system whose dynamics are described by a difference equation which arises in the context of certain systems when there is evidence that the driving noise process may be decoupled to contain a Markov process. The objective of such a decomposition is to improve prediction and thereby achieve better regulation of the system. In particular, the case where the Markov process is a finite state Markov-chain has interesting applications in meteorology and heating technology. The setting in this paper is that of the classical linear quadratic Gaussian problem, i.e. the parameter of the Markov process is a Gaussian Markov process, there are no explicit control constraints, and the objective function is quadratic in the state and the controls.

PD March 1996. **TI** Minimax Estimator for Linear Models with Nonrandom Disturbances. **AU** Christopeit, Norbert; Girko, Vyacheslav L. **AA** Christopeit: University of Bonn. Girko: University of Keiv. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/359; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 16. **PR** no charge. **JE** C20, C60. **KW** Linear Models. Nonrandom Disturbances. Hilbert Space. Linear Regression.
AB *not available.*

PD July 1997. **TI** A Simple Regime-Switching Model for Stochastic Volatilities. **AU** Christopeit, Norbert; Cron, Axel. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/406; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 19. **PR** no charge. **JE** C51, C53, G12. **KW** Stochastic Volatilities. Markov Regime Switching. Moment Estimator. Asset Pricing.
AB In this paper, a simple Markov switching model for the volatility of financial asset returns is presented. We discuss a moment estimation procedure and develop forecasts for future squared volatilities.

TI The Time Optimal Transition of Eastern Germany's Productivity. **AU** Ackermann, Michael B. E.; Christopeit, Norbert.

Chvatal, Vasek

TI On the Solution of Traveling Salesman Problems. **AU** Applegate, David; Bixby, Robert; Cook, William; Chvatal, Vasek.

TI Finding Tours in the TSP. **AU** Applegate, David; Bixby, Robert; Chvatal, Vasek; Cook, William.

Clarke, Rosemary

TI The Interpretation of Weak Sustainability Measures, and their Values in a Computed General Equilibrium Model of the World Economy. **AU** Bailey, Ralph W.; Clarke, Rosemary.

Cohen, Daniel

PD 1999. **TI** Welfare Differentials Across French and US Labor Markets: A General Equilibrium Interpretation. **AA** ENS, CEPREMAP, and Centre for Economic Policy Research. **SR** CEPREMAP Discussion Paper: 9904; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 40. **PR** between 25-35 francs. **JE** D31, J64, J65, P52. **KW** Unemployment Duration. Earnings Inequality. Labor Market Dynamics. Unemployment Benefits.
AB The paper computes lifetime welfare functions for French and American workers. For the vast majority of workers, the authors find that the lifetime discrepancy between the welfare of an employed and that of an unemployed worker appears to be similar in the two countries, corresponding to 9 months of wages in the U.S. and 13 months of wages in France. From these and other values, standard parameters of equilibrium theories of unemployment such as hiring and firing costs and the quantitative incidence of unemployment benefits are calibrated onto the equilibrium hiring rates. The latter factor is found to dominate the former. However, due to the heterogeneity among workers that this paper documents, the authors are able to demonstrate why reducing the level of French unemployment benefits to the level of American ones would dramatically reduce the welfare of the most vulnerable workers on the labor market.

Cohen, Joel E.

PD March 1998. **TI** Can a More Equal World Support More or Fewer People Than a Less Equal One? Theoretical Perspectives. **AA** Rockefeller University, Columbia University and Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 628; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 23. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D31, I30, J18, O15. **KW** Human Carrying Capacity. Population. Inequality. Convexity. Mathematical Models.
AB This speculative paper presents some simple models that shed light on the question: Can a more equal world support more people than a less equal one? In some models, the answer is yes. In other models, the answer is no, or yes only under

additional assumptions. The analysis reveals some conditions under which equality enhances, or fails to enhance, human carrying capacity. A review of published empirical and theoretical studies of the relation between economic inequality and economic performance reveals a diversity of results comparable to that from the models developed here. One implication for policy is that other factors appear to affect human carrying capacity at least as much as equality, such as levels of consumption, levels of productivity, how the environment is treated, cultural traditions, governments' policies towards their least well-off citizens, and the convexity or concavity of relations between economic inputs and economic outputs.

Cole, Matthew A.

PD April 1999. **TI** Air Pollution and 'Dirty' Industries: How and Why Does the Composition of Manufacturing Output Change with Economic Development? **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 99/07; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 21. **PR** 2 pounds ($4); no charge to academics. **JE** L60, O13, O14, Q25. **KW** Economic Development. Industrial Composition. Pollution Havens. Air Pollution.

AB This paper examines the impact on air pollution of changes in the composition of manufacturing output in developed and developing countries. Pollution emissions from manufacturing output are estimated in a manner which holds constant the effect of technology and regulations allowing the impact of compositional changes alone on pollution to be estimated. The paper has three main findings; (1) the inverted-U estimated between per capita income and the pollution intensity of gross domestic product (GDP) arises due to both the composition of manufacturing becoming cleaner and the share of manufacturing output in GDP falling. Compositional changes alone are not responsible for the inverted-U between per capita income and per capita emissions; (2) changes to the composition of manufacturing output are consistent with the pollution haven hypothesis, however there is clear evidence that rising per capita incomes are associated with a falling income elasticity of demand for 'dirty' products. This fact may explain the compositional changes that occur with development; (3) in addition to the income elasticity effect, the analysis suggests that land prices and to a lesser extent the prices of labor and capital, determine the proportion of dirty industry within a country's manufacturing sector.

Cole, Rebel A.

PD February 1999. **TI** Cookie-Cutter versus Character: The Micro Structure of Small Business Lending by Large and Small Banks. **AU** Cole, Rebel A.; Goldberg, Lawrence G.; White, Lawrence J. **AA** Cole: Krahenbuhl Financial Consulting. Goldberg: University of Miami. White: New York University. **SR** New York University, Salomon Center Working Paper: S/99/12; 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** 24. **PR** $5.00 each; $100.00 yearly subscription. **JE** G21, G30. **KW** Banking. Lending. Small Businesses. Loan Approval. Corporate Finance.

AB Consolidation in the U.S. banking system has focused attention on the differences in lending between large and small banks because large banks lend proportionately less to small business. We use a survey of small businesses conducted by the Federal Reserve to analyze the micro-level differences between large banks and small banks in the loan approval process. We provide evidence that large banks ($1 billion or more in assets) employ standard criteria obtained from financial statements in the loan decision process, but that small banks (less than $1 billion assets) deviate from these criteria by relying to a larger extent upon the character of the borrower. These "cookie-cutter" and "character" approaches are consistent with the incentives and environments facing large and small banks.

Combes, Pierre P.

PD January 1997. **TI** Intermodal Competition, Firms' Location and Asymmetries in Regional Surpluses. **AU** Combes, Pierre P.; Linnemer, Laureut. **AA** Combes: CREST, INSEE. Linnemer: Universite de Lille III and CREST. **SR** Document de Travail du CREST: 9712; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 39. **PR** no charge. **JE** L91, R13, R32, R41. **KW** Alternative Transport. Location Choices. Regional Development. Asymmetric Equilibrium.

AB We study the impact on firms' location and regional surpluses of the creation of a transportation mode that only serves two points ("airports"), as for instance planes or high-speed trains do, and which competes with a mode that continuously serves space. In a model a la Hotelling with discriminatory pricing, we characterize the equilibria of a game where two firms first choose their locations and then their prices. Although airports are assumed to be symmetrically located with respect to the middle of the distribution of consumers, our result is that asymmetric equilibria emerge. A symmetric equilibrium obtains only if the cost of the new mode is high. When the new transportation mode is built, total welfare increases only if the cost of the plane is small enough. Inequalities in regional surplus appear: in most cases, the welfare of one region decreases whereas it increases in the other. Nevertheless, in each region, the consumers' surplus increases, and firms' profits decrease. Lastly, we study the optimal location and pricing of the new mode.

Contini, Bruno

PD June 1999. **TI** Short Employment Spells in Italy, Germany and Great Britain: Testing the 'Port-of-Entry' Hypothesis. **AU** Contini, Bruno; Pacelli, Lia; Villoso, Claudia. **AA** Contini: University of Turin. Pacelli and Villosio: Ricerche E Progetti, Torino. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 426; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 27. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** E24, J62, J63, J68. **KW** Entry-Level Jobs. Employment Spells. Labor Market. Institutions.

AB This paper looks at short employment spells in three European countries: the UK, whose labor market is considered the most flexible in the European Union; Italy, regarded as the least flexible; and Germany, tightly regulated, but characterized by a deservedly famous apprenticeship system. In particular, it aims to assess whether young people in short-lived jobs stand a better chance of finding a "good job" compared to their older

colleagues. The increasingly held belief that -- in modern economies -- a "bad job" at the beginning of one's career is the "port-of-entry" to stable employment and to upward mobility, makes this assessment particularly relevant; i.e. it matters greatly if short- duration jobs are entry ports into better employment or become long-term traps. The lack of accepted benchmarks makes it difficult to reach strong conclusions in regard to the 'efficiency' of labor markets, however, this study should help to highlight the effect of different labor market institutions on mobility and on the soundness of the 'port- of-entry' hypothesis.

Cook, William

PD August 1997. **TI** Computing Minimum-Weight Perfect Matchings. **AU** Cook, William; Rohe, Andre. **AA** Cook: Rice University. Rohe: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 97863; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 17. **PR** no charge. **JE** C44, C60. **KW** Blossom Algorithm. Implementation. Perfect Matchings. Search Trees.

AB We make several observations on the implementation of Edmond's blossom algorithm for solving minimum-weight perfect matching problems and we present computational results for geometric problem instances ranging in size from 1,000 nodes up to 5,000,000 nodes. A key feature in our implementation is the use of multiple search trees with an individual dual-change e for each tree. As a benchmark of the algorithm's performance, solving a 100,000 node geometric instance on a 200 Mhz Penitum-Pro computer takes approximately 3 minutes.

TI On the Solution of Traveling Salesman Problems. **AU** Applegate, David; Bixby, Robert; Cook, William; Chvatal, Vasek.

TI Finding Tours in the TSP. **AU** Applegate, David; Bixby, Robert; Chvatal, Vasek; Cook, William.

Cooke, Diane

TI Defaults and Returns on High Yield Bonds: Analysis Through 1998 and Default Outlook for 1999-2001. **AU** Altman, Edward I.; Cooke, Diane; Kishore, Vellore.

Cordella, Tito

PD November 1998. **TI** Can Short-Term Capital Controls Promote Capital Inflows. **AA** Cordella: Universitat Pompeu Fabra. **SR** Centre for Economic Policy Research Discussion Paper: 2011; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 12. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F32, G14, G24, H87. **KW** Capital Controls. Capital Inflows. Bank Runs. Herd Behavior. Financial Crises.

AB In an economy a la Diamond and Dybvig (1983), we present an example in which foreign lenders find it profitable to invest in an emerging market if, and only if, the emerging market government imposes taxes on short-term capital inflows. This implies that capital controls that are effective in reducing the vulnerability of emerging markets to financial crises may increase the volume of capital inflows.

Cornelli, Francesca

PD November 1998. **TI** Risk Arbitrage in Takeovers. **AU** Cornelli, Francesca; Li, David D. **AA** Cornelli: London Business School. Li: University of Michigan. **SR** Centre for Economic Policy Research Discussion Paper: 2026; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 48. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D82, G32, G34. **KW** Mergers. Corporate Control. Arbitrage. Takeovers. Private Information.

AB The paper studies the role of risk arbitrage in takeover contests. We show that arbitrageurs have an incentive to accumulate non-trivial stakes in a company target of a takeover. For each arbitrageur, the knowledge of his own presence (and that he will tender a positive fraction of his shares) is an informational advantage which guarantees that there is a scope for trade with the other shareholders. In equilibrium, the number of arbitrageurs buying shares and the number of shares they buy are determined endogenously. The paper also presents a range of empirical implications, including the relationship between trading volume, takeover premium, bidder's toehold, liquidity of the shares and the probability that the takeover will succeed.

PD November 1998. **TI** Revenue Efficiency and Change of Control: The Case of Bankruptcy. **AU** Cornelli, Francesca; Felli, Leonardo. **AA** Cornelli: London Business School. Felli: London School of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 2030; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D44, G33, G34. **KW** Bankruptcy. Change of Control. Revenue Efficiency. Auctions. Restructuring.

AB The restructuring of a bankrupt company often entails a change of control. By efficiency of a bankruptcy procedure it is usually meant that the control is allocated into the hands of those who can maximize its value. In this paper we focus instead on how to allocate control with a procedure that allows the creditors to maximize their returns. The conclusion is that creditors should be allowed to retain a fraction of the shares of the company.

Cosh, Andy

PD June 1998. **TI** Innovation Surveys and Very Small Enterprises. **AU** Cosh, Andy; Hughes, Alan; Wood, Eric. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 89; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 56. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C81, L11, O31, O32, O52. **KW** Innovation. Small Firms. Innovation Surveys. European Union.

AB This paper reports results of a Eurostat-sponsored study into the desirability and feasibility of including "very small enterprises" (VSEs) in future European innovation surveys. The study assesses the extent of VSE economic and innovation activity in seven EU countries, and presents questionnaire-based evidence on current methods employed in these countries to survey VSE innovative activity. Finally, it examines the case for a European VSE innovation survey and provides an operational outline for a possible pilot project.

PD June 1998. **TI** Longitudinal Aspects of Innovation

Surveys: The CBR Experience. AU Cosh, Andy; Hughes, Alan; Wood, Eric. AA University of Cambridge. SR University of Cambridge, ESRC Centre for Business Research Working Papers: WP 90; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. PG 10. PR $10.00 (5 pounds); checks payable to University of Cambridge. JE C81, L11, L31, O31, O32. KW Innovation Surveys. Small Firms. Longitudinal Firm Surveys. Innovation. European Union.

AB This paper reports results of a Eurostat-sponsored study into the desirability and feasibility of including "very small enterprises" (VSEs) in future European innovation surveys. The study assesses the extent of VSE economic and innovation activity in seven EU countries, and presents questionnaire-based evidence on current methods employed in these countries to survey VSE innovative activity. Finally, it examines the case for a European VSE innovation survey and provides an operational outline for a possible pilot project.

Coudouel, Aline

TI Targeting Social Assistance in a Transition Economy: The Mahallas in Uzbekistan. AU Micklewright, John; Coudouel, Aline; Marnie, Sheila.

Coutant, Sophie

TI Reading Interest Rate and Bond Futures Options' Smiles Around the 1997 French Snap Election. AU Jondeau, Eric; Rockinger, Michael; Coutant, Sophie.

Cremer, Helmuth

TI On The Political Sustainability of Redistributive Social Insurance Systems. AU Casamatta, Georges; Cremer, Helmuth; Pestieau, Pierre.

Cressman, R.

PD April 1998. TI Updating Strategies Through Observed Play Optimization Under Bounded Rationality. AU Cressman, R.; Schlag, Karl H. AA Cressman: Wilfrid Laurier University. Schlag: University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/432; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. PG 49. PR no charge. JE C72, C79, D83. KW Multi-Armed Bandit. Behavioral Rules. Imitation. Replicator Dynamics. Monotone Dynamics.

AB Individuals repeatedly face a multi-decision task with unknown payoff distributions. They have minimal memory and update their strategy by observing previous play (and not strategy) of someone else. We select behavior rules that increase average payoffs as often as possible in a large population where all use the same rule. Here imitation generalizes to a pasting procedure. When decisions within the task are unrelated, individuals eventually learn the efficient strategy but the underlying dynamic is not monotone. However, when choices influence which decisions are subsequently faced in the task, play may not be efficient in the long run as it approaches a Nash equilibrium of the agent normal form.

Cron, Axel

TI A Simple Regime-Switching Model for Stochastic Volatilities. AU Christopeit, Norbert; Cron, Axel.

Currarini, Sergio

PD June 1998. TI Core-Theoretic and Political Stability of International Agreements on Transfrontier Pollution. AU Currarini, Sergio; Tulkens, Henry. AA Currarini: Universite Catholique de Louvain and Iowa State University. Tulkens: Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 9793; 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 C71, C72, D72, Q25, Q28. KW Voting games. Core. International Cooperation. Pollution. Political Equilibrium.

AB International agreements on transfrontier pollution issues require approval by domestic political institutions. In this paper we employ a voting game theoretic model to characterize the stability of such agreements when each country's participation is conditioned upon a domestic ratification vote. To describe pre-treaty or no treaty situations, we propose a concept of (non cooperative) political equilibrium, and prove its existence. Then, we show that the set of cooperative joint policies (yielding a treaty) that are ratified by all countries is nonempty. Moreover, in our model, the unique agreement so ratified corresponds to the ratio equilibrium allocation of the international economy with the non cooperative equilibrium allocation as initial endowment.

TI Inflation, Welfare and Public Goods. AU Bloise, Gaetano; Currarini, Sergio; Kikidis, Nicholas.

D'Addio, Anna Cristina

PD September 1998. TI Unemployment Duration of French Young People. AA Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 9851; 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 C41, C51, J64. KW Unemployment. Hazard Models. Duration. Discrete-Time Data. Unobserved Heterogeneity.

AB Using the 1990-1992 wave of the French Labor Force Survey this paper analyzes the effects of different factors on the probability of leaving unemployment of French young people. It also studies duration dependence of the hazard rate while controlling for unobserved heterogeneity separately for men and women. A semi-parametric and two parametric hazard functions have been estimated using grouped duration data. A gamma mixing distribution is used to capture individual unobserved heterogeneity. When the correction for unobserved heterogeneity is not incorporated the model chosen is (for both groups) the Weibull that shows a negative duration dependence. Whenever unobserved heterogeneity is modeled, the exponential hazard function (no duration dependence) is retained and again for both populations analyzed. This result seems to suggest that observed true negative duration dependence should be explained more through unobserved heterogeneity than through structural factors, a conclusion to be thought of in terms of the mover-stayer paradigm.

da Silva, Sergio

PD August 1998. TI Overshooting and Foreign Exchange Intervention. AA University of Birmingham.

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SR University of Birmingham, Department of Economics Discussion Paper: 98/16; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 35. **PR** 2 pounds ($4); no charge to academics. **JE** D43, E52, F31, F41. **KW** Overshooting. Obstfeld-Rogoff Model. Dornbusch Model. Exchange Rates.

AB The paper discusses exchange rate overshooting in connection with foreign exchange intervention. It covers the basic Dornbusch model and some of its extensions, portfolio balance models with flexible prices, and special reference is paid to Obstfeld and Rogoff's sticky-price model with monopolistic competition. The result that overshooting may emerge out of free float and cannot be removed by unqualified foreign exchange intervention is shown to hold for the models discussed.

PD May 1999. **TI** Exchange Rate Dynamics Redux and Chaos. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 99/08; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 18. **PR** 2 pounds ($4); no charge to academics. **JE** F31, F41, F47. **KW** Chaos. Chartists. Exchange Rates. Speculative Dynamics.

AB This paper extends the model of the exchange rate developed by Obstfeld and Rogoff (1995; 1996) to consider the speculative dynamics resulting from the interaction between chartists and fundamentalists put forward by De Grauwe, Dewachter, and Embrechts (1993). Chaotic solutions for the nominal exchange rate are shown to be possible for sensible values of the parameters of the model.

PD May 1999. **TI** Chaos in a Standard Equilibrium Exchange-Rate Model. **AU** da Silva, Sergio; Bailey, Ralph W. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 99/09; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 13. **PR** 2 pounds ($4); no charge to academics. **JE** F31, F41, F47. **KW** Chaos. Exchange Rate. Equilibrium Model. Logistic Equation.

AB The paper examines the hypothesis that the nominal exchange rate follows a logistic equation within the framework of the equilibrium exchange rate model. The nominal exchange rate is shown to behave chaotically when the logistic equation is introduced into the model of Stockman (1987). Our version of the equilibrium model features Cobb- Douglas functional forms for both production and utility, and considers foreign exchange intervention explicitly. The paper can be viewed as an exercise showing that chaos can emerge in the foreign exchange market even if destabilizing speculative behavior is absent.

Daniel, Joseph I.

PD January 1998. **TI** Comparison of Three Empirical Models of Airport Congestion Pricing. **AU** Daniel, Joseph I.; Pahwa, Munish. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 98/01; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 32. **PR** no charge. **JE** C52, L93, R41. **KW** Bottleneck Model. Queuing Theory. Peak-Load Pricing. Airport Capacity.

AB This paper compares results obtained from three empirical models of airport congestion pricing. Morrison (1983) and Morrison and Winston (1989) implement standard peak-load pricing models using econometrically estimated demand and delay functions. Vickrey (1969) and Arnott, et al. (1991, 1993) develop bottleneck models with deterministic queues to provide structural models of intertemporal traffic adjustments in response to congestion pricing and changes in capacity. Daniel (1995) combines a bottleneck model with a time-dependent stochastic queuing model. This paper applies each of these models to Daniel's airport traffic data. While equilibria from all three models approximate the existing traffic patterns in the absence of congestion fees, their different assumptions about delay functions and intertemporal shifting of demand lead to significantly different fee schedules. The authors conclude that modeling intertemporal substitution and stochastic traffic and delay produces more realistic responses of traffic patterns to congestion pricing and causes significant differences in the optimal fee structures.

PD January 1998. **TI** Computer Aided Instruction on the World Wide Web: The Third Generation. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 98/02; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 24. **PR** no charge. **JE** A22, D10, D20, D40. **KW** Internet. Computer-Aided Instruction. Education Costs. Microeconomics.

AB The world wide web represents the third major shift in cost structure for development and distribution of computer aided instruction. This paper reviews criticisms of earlier generations of computer aided instruction (CAI) and develops criteria for CAI on the WWW. It presents an experimental CAI package intended to satisfy those criteria. oo_Micro! Is a multimedia WWW site that integrates a textbook, mini- lecture series, graphical calculator, animated drawing program, spreadsheet, and econometrics package. oo_Micro! stands for object- orientated microeconomics. It uses JAVA applets to represent economic models as graphical objects that can be drawn, manipulated, and animated using the mouse.

PD January 1998. **TI** Distributional Consequences of Airport Congestion Pricing. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 98/03; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 25. **PR** no charge. **JE** C51, L93, R41. **KW** Bottleneck Model. Queuing Theory. Peak-Load Pricing. Airport Capacity.

AB This paper investigates the distributional impact of airport congestion pricing on commercial, commuter, miscellaneous, and general aviation. It extends Daniel's (1995) stochastic bottleneck model in three significant directions by allowing for non-homogeneous aircraft operating and time costs, differentiation in preferred times of operation, and elastic demand. The model also includes endogenous, intertemporal traffic adjustments in response to queuing delay and fees. The relative costs of queuing and schedule delays are estimated using data from Minneapolis-St. Paul airport. Simulations show equilibrium traffic patterns, queuing delays, schedule delays, congestion fees, airport revenues, and changes in surplus for

each category of aviation.

PD January 1998. TI The Environmental Impact of Highway Congestion Pricing. AU Daniel, Joseph I.; Bekka, Khalid. AA University of Delaware. SR University of Delaware, Department of Economics Working Paper: 98/04; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. PG 25. PR no charge. JE L92, Q25, R41. KW Congestion Pricing. Automobile Emissions. ISTEA. Clean Air.
AB We estimate reductions in vehicle emissions of carbon monoxide, nitrogen oxides, and hydrocarbons from highway congestion pricing in New Castle County (NCCo), Delaware. Our computer simulation model includes elastic travel demand with routes chosen to minimize average private cost (no pricing) or marginal social cost (congestion pricing) of all trips between pairs of 257 zones in NCCo. We model vehicle emissions using the Environmental Protection Agency's Mobile 5a emissions model. Using Delaware's household travel-demand and highway traffic-count data, we simulate pricing all roadways and pricing only major highways. We estimate reductions of emissions from five to fifteen percent on major highways, depending on demand elasticity and extent of pricing.

PD February 1998. TI Congestion Pricing of Highway Networks. AU Daniel, Joseph I.; Bekka, Khalid. AA University of Delaware. SR University of Delaware, Department of Economics Working Paper: 98/05; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. PG 25. PR no charge. JE L92, R41. KW Congestion Pricing. Highway Congestion. Incidence. Traffic Levels.
AB We model and estimate equilibrium congestion fees, traffic volumes, travel times, and welfare gains from highway congestion pricing in New Castle County, Delaware. Our computer simulation model determines the equilibrium traffic levels with elastic demand depending on travel times and congestion fees. We use Delaware's household-travel-demand data to implement the model. We consider two pricing scenarios: pricing the entire highway network, and pricing only major highways. We also estimate changes in revenues, consumer surplus, and social welfare for individual highway segments, key regions, and the entire network. We determine that congestion pricing has the highest incidence on suburban residents and lowest incidence on the inner city, but the incidence remains constant or decreases with income.

Danthine, Jean-Pierre

PD September 1998. TI A la Poursuite du Graal: Le Successeur d'IS-LM est-il Identifie. AA University of Lausanne and Centre for Economic Policy Research. SR Universite de Lausanne Cahiers de Recherches Economiques: 9816; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. PG 16. PR no charge. JE B41, E10, E32. KW IS-LM. Neoclassical Synthesis. Frictions. Business Cycles.
AB The profile of the successor to the IS-LM model starts to emerge; the identifying process and the nature of the objective one is groping for are now relatively clear. With the help of three specific experiments, a few of the likely ingredients of the new neo-classical synthesis are derived. In the end, it appears that only our imperfect knowledge of some key empirical facts keeps us away from a new consensus.

Darolles, Serge

PD January 1997. TI Dynamiques Tronquees et Estimation de Modeles de Diffusion. AU Darolles, Serge; Gourieroux, Christian. AA Darolles: CREST and GREMAQ. Gourieroux: CEPREMAP and CREST. SR Document de Travail du CREST: 9704; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. PG 41. PR no charge. JE C14, C15, C22. KW Truncation. Diffusion Process. Method of Moments. Infinitesimal Generator.
AB We consider truncated processes, both in discrete and continuous time, and study their dynamic properties. When the underlying process is a diffusion process, we derive the infinitesimal generator of its truncated counterpart. This result is the basis for the estimation of the drift and volatility parameter of a diffusion model.

Davies, Sally M.

TI Comparing Market and Supervisory Assessments of Bank Performance: Who Knows What When? AU Berger, Allen N.; Davies, Sally M.; Flannery, Mark J.

Davis, Benjamin

TI Determinants of Mexico-U.S. Migration: The Role of Household Assets and Environmental Factors. AU de Janvry, Alain; Sadoulet, Elisabeth; Davis, Benjamin; Seidel, Kevin; Winters, Paul.

TI Determinants of Mexico-U.S. Migration: The Role of Household Assets and Environmental Factors. AU de Janvry, Alain; Sadoulet, Elisabeth; Davis, Benjamin; Seidel, Kevin; Winters, Paul.

de Bandt, Oliver

TI Stability Versus Efficiency of the Banking Sector and Economic Growth. AU Amable, Bruno; Chatelain, Jean-Bernard; de Bandt, Oliver.

De Grauwe, Paul

PD February 1999. TI The European Central Bank: Decision Rules and Macroeconomic Performance. AU De Grauwe, Paul; Dewachter, Hans; Aksoy, Yunus. AA Katholieke Universiteit Leuven. SR Centre for Economic Policy Research Discussion Paper: 2067; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 40. PR 5 dollars or 8 dollars or 8 euros. JE E58, E61, F33, F36, F42. KW European Monetary Union. Linear Feedback Rules. Monetary Stability. Central Banks.
AB In this paper we analyze the effects of different decision rules in the ECB on monetary stability. We consider a model where asymmetric shocks and divergent propagation of shocks on output and inflation are potential causes of tensions within the ECB concerning the conduct of monetary (interest rate) policy. Given divergence of desired interest rates (due to the asymmetries) we analyze the effect of different voting procedures within the Governing Council of the ECB. Welfare implications are discussed.

de Janvry, Alain

PD May 1997. **TI** Determinants of Mexico-U.S. Migration: The Role of Household Assets and Environmental Factors. **AU** de Janvry, Alain; Sadoulet, Elisabeth; Davis, Benjamin; Seidel, Kevin; Winters, Paul. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 853; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 41. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** F22, I39, J43, O15, R23. **KW** Migration. Households. Rural Development. Environmental Aspects. Policy.

AB Concerns with illegal migration to the United States originating in Mexico's rural population, and the possibility of defining a set of interventions to reduce incentives to migrate at the source, require a precise understanding of the current determinants of migration for this population. Poverty and the expected income gap between emitting and receiving areas are major determinants of migration. The role of remittances in compensating for credit and insurance market failures for Mexican smallholders is an additional incentive to migrate. As migration networks mature, both at the level of individual households and at the community level, the nature of migration changes and becomes increasingly difficult to detain. Finally, environmental factors limit the options in agriculture and induce migration. This paper tries to assess the relative importance of these various determinants of migration for the purpose of identifying policy and programmatic interventions that can be used to reduce incentives to migrate.

TI Social and Environmental Consequences of the Mexican Reforms: Common Pool Resources in the Ejido Sector. **AU** Key, Nigel; Munoz-Pina, Carlos; de Janvry, Alain; Sadoulet, Elisabeth.

PD June 1998. **TI** The Changing Role of the State in Latin American Land Reforms. **AU** de Janvry, Alain; Sadoulet, Elisabeth; Wolford, Wendy. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 852; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 35. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** O13, Q28, R52. **KW** Land Reforms. Latin America. Rural Development.

AB Over the last eighty years, virtually all Latin American governments have used the power of the state to alter access to land for specific categories of households in regions where there is population pressure on the land and to redefine land rights for those with access. A historical overview of land reform in Latin America helps explain why eighty years of reforms have not been more effective in solving the problems of lack of access to land for many rural households and in reducing the very high inequality in land distribution. There are two issues related to access to land that still remain problematic. First, land is extremely unequally distributed and this skewed distribution is associated with misuse of the land from a social standpoint. Second, rural poverty, which is closely associated with landlessness and insufficient access to land, is extensive and has not diminished.

de Jong, Frank

PD February 1999. **TI** Time-Series and Cross-Section Information in Affine Term Structure Models. **AA** University of Amsterdam. **SR** Centre for Economic Policy Research Discussion Paper: 2065; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 48. **PR** 5 dollars or 8 dollars or 8 euros. **JE** C33, E43, G10. **KW** Term Structure. Panel Data. Kalman Filter. Affine Models. Interest Rates.

AB In this paper we provide an empirical analysis of the term structure of interest rates using the affine class of term structure models introduced by Duffie and Kan. We estimate these models by combining time-series and cross-section information in a theoretically consistent way. In the estimation we use an exact discretization of the continuous time factor process and allow for a general measurement error structure. We provide evidence that a three factor affine model with correlated factors is able to provide an adequate fit of the cross section and the dynamics of the term structure. The three factors can be given the usual interpretation of level, steepness and curvature. The shocks to these factors are significantly correlated.

de Melo, Jaime

TI Harmonizing External Quotas in a FTA: A Step Backward? **AU** Cadot, Olivier; de Melo, Jaime; Olarreaga, Marcelo.

de Mooij, Ruud A.

TI Tax Reform and the Dutch Labour Market: An Applied General Equilibrium Approach. **AU** Bovenberg, A. Lans; Graafland, Johan J.; de Mooij, Ruud A.

De Nicolo, Gianni

TI Did You Know that Monetary Disturbances Matter for Business Cycles Fluctuations? Evidence from the G-7 Countries. **AU** Canova, Fabio; De Nicolo, Gianni.

De Sinopoli, Francesco

PD June 1998. **TI** Two Results about Generic Non Cooperative Voting Games with Plurality Rule. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9834; 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** C72, D72. **KW** Voting Games. Noncooperative Games. Plurality Rule.

AB In this paper we prove that for generic (non cooperative) 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 isolated. From that we deduce also that the set of equilibrium distributions over outcomes is finite. Furthermore we offer an example (due to Govindan and McLennan) that shows the impossibility of extending such results to a general framework.

PD July 1998. **TI** Strategic Stability and Non Cooperative Voting Games: The Plurality Rule. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9843; 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** C72, D72. **KW** Voting Games. Noncooperative Games. Plurality Rule. Perfect Equilibria.

AB In this paper we show, via some simple examples, that also in the class of games we are dealing with, there are perfect equilibria that are not proper and, moreover, some "proper" outcome is not induced by any stable set. Furthermore, we show that the perfect concept does not appear restrictive enough, since, independently of preferences, it can exclude at most the election of only one candidate. Finally, the stable set's conformity to the iterated dominance principle implies the superiority of this solution concept, even in the peculiar class of plurality games.

Deakin, Simon

PD June 1998. **TI** Labour Law and Economic Theory: A Reappraisal. **AU** Deakin, Simon; Wilkinson, S. Frank. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 92; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 37. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** K31, J31, J38, J53, J58. **KW** Labor Law. Labor Standards. Market Regulation. Labor Markets. Employment.

AB This paper reassesses economic arguments for and against labor law regulation in the light of recent developments in contract theory, institutional economics, and the theory of the firm. Early analyses in the "law and economics" tradition were largely hostile to labor market regulation, but more sophisticated recent work suggests that in unregulated markets, there are significant barriers to both static and dynamic efficiency. In particular, where workers invest in firm-specific skills, incentive structures should incorporate some protection against arbitrary treatment or redundancy. This new labor market theory has potential implications for public policy.

PD September 1998. **TI** Performance Standards in Supplier Relations: Relational contracts, Organisational Processes and the Institutional Environment. **AU** Deakin, Simon; Lane, Christel; Wilkinson, S. Frank. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 100; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 27. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D23, L14, L51, L52, L60. **KW** Supplier Relations. Contracting. Trust. Performance Standards. Institutional Environment.

AB The paper investigates the link between national institutional structures and business performance as indicated by the findings of a comparative study of supplier relations in two traditional industries -- mining machinery and kitchen furniture -- in Germany, Britain and Italy. It shows that both supposedly rigid performance standards based on long- term contracts and quality thresholds, and less formal social norms which operate at a conventional or customary level, can help raise industrial performance. In contrast, the absence of norms or conventions governing inter-firm cooperation may adversely affect the degree to which an industry generates high-quality and technologically sophisticated products.

PD September 1998. **TI** Quasi-Markets, Transaction Costs and Trust: Institutional Change in Broadcasting. **AU** Deakin, Simon; Pratten, Stephen. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 101; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 36. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D23, D40, L14, L52, L82. **KW** Quasi-Markets. Broadcasting. Trust. Outsourcing. Contracts.

AB This paper explores tensions arising from the introduction of quasi- market relations in British broadcasting, with particular reference to relations between the independent production sector and terrestrial broadcasters and the effects of internal reorganizations within the BBC and ITV. Case studies and interviews with broadcast media representatives suggest that despite changes, decision making remains largely hierarchical, and the responsiveness of broadcasters to viewer priorities remains problematic. However, the paper argues that the most important question is whether the reforms provide a framework for effective contractual cooperation. If broadcasting quasi-markets are to be sustainable, the institutional framework must be sufficiently flexible to allow close contractual relations to develop. Under the present framework, the tensions between competition and cooperation will not be easily resolved.

Del Rey Canteli, Elena

PD October 1998. **TI** The Effects of Economic Integration on the Provision of Mandatory Education as a Redistributive Policy. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9857; 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** H21, H42, H52, H87, I28. **KW** Public Goods. Education. Efficiency. Optimal Taxation. Fiscal Competition.

AB The aim of this paper is to investigate the implications of increased student mobility on the level of education provided after opening the borders between two similar countries. As a preliminary result, it will be shown that some public provision of mandatory education can be welfare improving when an optimal linear income tax exists. Compared to the autarchic optimal provision level, mandatory education will be underprovided in both countries at the symmetrical Nash equilibrium.

Del Rio, Fernando

TI Endogenous Vs. Exogenously Driven Fluctuations in Vintage Capital Models. **AU** Boucekkine, Raouf; Del Rio, Fernando; Licandro, Omar.

Demekas, Dimitri G.

PD April 1999. **TI** Government Employment and Wages and Labor Market Performance. **AU** Demekas, Dimitri G.; Kontolemis, Zenon G. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/95; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 23. **PR** not available. **JE** D72, H31, J31, J45, J64. **KW** Unemployment. Wage Differentials. Public Sector. Labor Markets. Business Cycles.

AB Government wage, benefit, and employment decisions are not taken on a profit-maximizing basis and have a substantial impact on aggregate labor market performance and unemployment. In a two-sector labor market model with free mobility of labor, an increase in governmental wages or benefits reduces private sector employment, and government employment is not an effective counter-cyclical instrument. Empirical tests for Greece confirm that the expansion of the public sector in the 1980's contributed to the deterioration of labor market performance.

Demertzis, Maria

PD February 1999. **TI** EMU and the External Value of the Euro. **AU** Demertzis, Maria; Hughes Hallett, Andrew J. **AA** University of Strathclyde. **SR** Centre for Economic Policy Research Discussion Paper: 2058; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 48. **PR** 5 dollars or 8 dollars or 8 euros. **JE** F31, F33, F36, F42, G15. **KW** European Monetary Union. Currency Markets. Exchange Rates. Euro. Policy Coordination.

AB The size and economic relevance of Europe may imply a new role for the EURO in the international financial markets. Two important uncertainties arise from the fact that the long run trend of the EURO depends on the economic performance of the partner countries as well as on the properties of the new currency: (i) the international use of the EURO in trade, and (ii) the implementation of monetary and fiscal policies. Much of this uncertainty is due to some of the effects working in opposite directions and many being felt gradually, while others will become obvious as soon as the EURO is introduced. The authors discuss some of the reasons why the EURO might be strong or weak but more importantly why it may be volatile at least in the initial stages. Finally, they calculate the "synthetic" EURO and show how one EURO is not one ECU.

Demsetz, Rebecca S.

TI The Consolidation of the Financial Services Industry: Causes, Consequences, and Implications for the Future. **AU** Berger, Allen N.; Demsetz, Rebecca S.; Strahan, Philip E.

Dewachter, Hans

TI The European Central Bank: Decision Rules and Macroeconomic Performance. **AU** De Grauwe, Paul; Dewachter, Hans; Aksoy, Yunus.

Dex, Shirley

TI Low Pay in Europe and the USA: Evidence from Harmonised Data. **AU** Robson, Paul; Dex, Shirley; Wilkinson, S. Frank; Salido, Olga.

TI Low Pay and Social Exclusion: A Cross-National Comparison. **AU** Robson, Paul; Dex, Shirley; Wilkinson, S. Frank.

Diebold, Francis X.

PD October 1998. **TI** Real-Time Multivariate Density Forecast Evaluation and Calibration: Monitoring the Risk of High-Frequency Returns on Foreign Exchange. **AU** Diebold, Francis X.; Hahn, Jinyong; Tay, Anthony S. **AA** Diebold: University of Pennsylvania, New York University and National Bureau of Economic Research. Hahn: University of Pennsylvania and Massachusetts Institute of Technology. Tay: National University of Singapore. **SR** New York University, Salomon Center Working Paper: S/98/42; 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** 20. **PR** $5.00 each; $100.00 yearly subscription. **JE** C53, F31, G11, G12. **KW** Density Forecasts. Exchange Rates. Risk Management. Asset Pricing.

AB We provide a framework for evaluating and improving multivariate density forecasts. Among other things, the multivariate framework lets us evaluate the adequacy of density forecasts involving cross-variable interactions, such as time-varying conditional correlations. We also provide conditions under which a technique of density forecast "calibration" can be used to improve deficient density forecasts. Finally, motivated by recent advances in financial risk management, we provide a detailed application to multivariate high-frequency exchange rate density forecasts.

PD November 1998. **TI** Pitfalls and Opportunities in the Use of Extreme Value Theory in Risk Management. **AU** Diebold, Francis X.; Schuermann, Til; Stroughhair, John D. **AA** Diebold: University of Pennsylvania. Schuermann and Stroughair: Oliver, Wyman and Company. **SR** New York University, Salomon Center Working Paper: S/98/41; 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** 7. **PR** $5.00 each; $100.00 yearly subscription. **JE** G11, G12. **KW** Extreme Value Theory. Risk Management. Asset Pricing.

AB Recent literature has trumpeted the claim that extreme value theory (EVT) holds promise for accurate estimation of extreme quantiles and tail probabilities of financial asset returns, and hence holds promise for advances in the management of extreme financial risks. Our view, based on a disinterested assessment of EVT from the vantage point of financial risk management, is that the recent optimism is partly appropriate but also partly exaggerated, and that at any rate much of the potential of EVT remains latent. We substantiate this claim by sketching a number of pitfalls associated with use of EVT techniques. More constructively, we show how certain of the pitfalls can be avoided, and we sketch a number of explicit research directions that will help the potential of EVT to be realized.

Dimaria, Charles-Henri

PD 1998. **TI** Debt, Corruption, R&D and Growth in Developing Countries. **AU** Dimaria, Charles-Henri; Le Van, Cuong. **AA** Dimaria: CEMEFEG, CEPREMAP. Le Van: CEPREMAP, CNRS. **SR** CEPREMAP Discussion Paper: 9817; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 34. **PR** between 25-35 francs. **JE** D92, O12, O32, O41. **KW** Optimal Path. Steady States. Poverty Trap. Research & Development.

AB This paper analyzes optimal paths in a one-sector growth model when the technology is not convex. In such a case, the paper proves that optimal paths converge to the upper steady state if and only if the initial wealth is above the critical level. Then the authors first show that thanks to debt and/or Research & Development the poverty trap may be avoided. Second, they introduce a distortion: corruption which usually has dramatic consequences on growth. These results may explain why

empirical work arrives at the conclusion of non-convergence in large cross-country samples.

Dionne, Georges

PD January 1997. **TI** The Informational Content of Household Decisions. **AU** Dionne, Georges; Gourieroux, Christian; Vanasse, C. **AA** Dionne: HEC, Montreal. Gourieroux: CREST and CEPREMAP. Vanasse: University of Montreal. **SR** Document de Travail du CREST: 9701; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 31. **PR** no charge. **JE** C25, D81, G11, G22. **KW** Adverse Selection. Endogenous Choice. Automobile Insurance. Life Insurance.

AB We discuss how to detect the informational content of household decisions among the explanatory variables of econometric models. Some applications to the choice of automobile insurance contracts and to the demand for life insurance are provided. We show that the information provided by additional decision variables is rather weak and often non significant.

Djankov, Simeon

PD October 1998. **TI** Conditions of Competition and Multilateral Surveillance. **AU** Djankov, Simeon; Hoekman, Bernard. **AA** Djankov: University of Michigan. Hoekman: World Bank. **SR** Centre for Economic Policy Research Discussion Paper: 1988; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D40, F13, L11. **KW** Trade Policy. Competition Policy. Market Structure. Multilateral Surveillance.

AB WTO members are starting to consider whether and how to develop multilateral disciplines on competition policies. These discussions are taking place in the absence of concerted efforts to compile comparable information on the conditions of competition existing in member country markets. We argue in this paper that collection of simple measures of industrial structure and import penetration would be useful in characterizing the 'conditions of competition' that prevail in an economy. Although these types of data are not policy-specific, they could be used for monitoring, reporting and multilateral surveillance purposes, and allow cross-country comparisons and the establishment of "benchmarks" against which changes in a given country over time could be measured.

Dluhosch, Barbara

TI Globalization and European Labour Markets. **AU** Burda, Michael C.; Dluhosch, Barbara.

Dolton, Peter

PD April 1999. **TI** The Economic Case for Reforming A Levels. **AU** Dolton, Peter; Vignoles, Anna. **AA** Dolton: University of New Castle. Vignoles: London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 422; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 34. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** I21, J24, J31. **KW** Curriculum. A Levels. Returns to Education. Job Preparedness.

AB Critics claim that A level students often lack essential skills required for the world of work. In response, the government is proposing to reform the A level system. In future, students may take up to five subjects in their first year of sixth form, and a "key skills" in IT, communication and the "application of number". This paper assesses whether employers pay a wage premium for some A level subjects, confirming a possible shortfall of these "key skills". We find individuals with a mathematics A level earn 7-10% more than otherwise similarly educated workers without this qualification.

Domac, Ilker

PD March 1999. **TI** Real Exchange Rate Behavior and Economic Growth: Evidence from Egypt, Jordan, Morocco, and Tunisia. **AU** Domac, Ilker; Shabsigh, Ghiath. **AA** Ilker: Wolrd Bank. Shabsigh: International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/40; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 21. **PR** not available. **JE** F31, F41, F43, O11, O53. **KW** Exchange Rates. Misalignment. Growth. Arab Countries. Egypt.

AB This paper examines the effect of the real exchange rate misalignment (RERMIS) on the collective economic growth of Egypt, Jordan, Morocco, and Tunisia. The paper constructs three measures of exchange rate misalignment based on purchasing power parity; a black market exchange rate; and a structured model. The empirical investigation confirmed the adverse effect of RERMIS on growth, using all measures of RERMIS, as predicted by endogenous growth models. The results also highlighted the role of other factors; specifically, capital growth and population have the theoretical signs predicted by the Solow growth model and are statistically significant.

Domenighetti, Gianfranco

PD January 1999. **TI** Does Provision of an Evidence-Based Information Change Public Willingness to Accept a Screening Test? **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9901; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 7. **PR** no charge. **JE** D80, I11, I12, I18. **KW** Health Care Markets. Information. Decision Making. Screening. Diagnostic Procedures.

AB The basic requirement for patient decision making is the provision by the physician of essential relevant and understandable information (Evidence Based) allowing him to decide whether he wishes to receive the proposed treatment. This analysis shows that the willingness to undergo a doubtful screening test (about 70 percent false positive responses) for a rare cancer by the general population changes dramatically (60 percent versus 13.5 percent) according to the quality of information provided. This result, facing the impressive increase of diagnostic and screening procedures, could have important economical, ethical, clinical, public health and legal implications.

Drake, Leigh

PD September 1998. **TI** Incorporating Risky Assets in Divisia Monetary Aggregates. **AU** Drake, Leigh; Mullineux, Andy; Agung, Juda. **AA** Drake: University of Loughborough. Mullineux and Agung: University of

Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/25; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 22. **PR** 2 pounds ($4); no charge to academics. **JE** C43, E41, E52, G11. **KW** Monetary Aggregates. Unit Trusts. Broad Money. Bonds.
AB Capital uncertain or risky assets are typically excluded from traditional broad monetary aggregates. Barnett et al (1997), however, extend the Divisia aggregation methodology to incorporate such assets. In addition, recent evidence provided by Drake et al (1998) suggests that risky assets are close substitutes for monetary assets. This paper constructs 'wide' Divisia monetary aggregates which include risky assets such as unit trusts (mutual funds), equities and bonds, and contrasts their empirical properties with conventional Divisia and simple sum broad money aggregates. The key finding in the paper is that a 'wide' monetary aggregate, which incorporates unit trusts, exhibits a stable long run and dynamic money demand function, has good leading indicator properties in the context of Granger causality tests, and tends to outperform all other aggregates on the basis of non-nested tests.

Dreze, Jacques H.

PD August 1998. **TI** Continua of Underemployment Equilibria. **AU** Dreze, Jacques H.; Herings, Jean-Jacques P. **AA** Dreze: Universite Catholique de Louvain. Herings: Tilburg University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9845; 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** 32. **PR** $100 per year. **JE** C62, D51, E24, J64. **KW** General Equilibrium. Underemployment. Coordination Failures. Unemployment. Indeterminacy.
AB In this paper the existence of unemployment is partly explained as being the result of coordination failures. This is achieved by considering a standard general equilibrium model and splitting the set of commodities into two groups. The first group contains commodities with fully flexible prices, even in the short run, and with markets that always clear. The second group's prices are rigid in the short run (for instance labor services or some consumer goods) and households and firms may expect restricted supply possibilities. The authors show that such expectations are self-enforcing. In that case it is shown that as a result of coordination failures a continuum of equilibria results, among which an equilibrium with approximately no trade in the commodities of the second group, and a Walrasian equilibrium. In fact, these coordination failures also arise at other price systems. Moreover, some properties of the set of equilibria are analyzed.

PD September 1998. **TI** Intertemporal General Equilibrium and Monetary Theory. **AU** Dreze, Jacques H.; Polemarchakis, Heracles M. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9853; 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** D50, E31, E43, E52, E58. **KW** Monetary Policy. General Equilibrium. Interest Rates. Inflation.
AB The introduction of banks that issue money and supply balances and pay out their profits as dividends is the natural modification of the model of general competitive equilibrium that encompasses monetary economies. Competitive equilibria exist. Nevertheless, even though there is a well defined money market, competitive equilibrium allocations are indeterminate. On an event tree with N nodes, of which S are terminal, there are N+S degrees of nominal and, possibly, real indeterminacy. Monetary policy removes some degrees of indeterminacy through a choice of instruments, set according to a state-contingent rule. Interest rates are suitable instruments for the control of expected inflation but not of the variability of inflation. Monetary policy is also effective due to redistributive effects and nominal rigidities.

Dreze, Jean

TI Daily Wages and Piece Rates in Agrarian Economies. **AU** Baland, Jean-Marie; Dreze, Jean; Leruth, Luc.

Dueker, Michael

PD February 1999. **TI** European Business Cycles: New Indices and Analysis of their Synchronicity. **AU** Dueker, Michael; Wesche, Katrin. **AA** Dueker: Federal Reserve Bank of St. Louis. Wesche: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/448; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 20. **PR** no charge. **JE** C22, C25, E32, F42. **KW** Business Cycles. Recessions. Gibbs Sampling. Cyclical Indicators. Europe.
AB This article presents a new type of business-cycle index that allows for cycle-to-cycle comparisons of the depth of recessions within a country, cross-country comparisons of business-cycle correlation and simple aggregation to arrive at a measure of a European business cycle. The paper examines probit-type specifications of binary recession/expansion variables in a Gibbs-sampling framework, wherein it is possible to incorporate time-series features to the model, such as serial correlation, heteroskedasticity and regime switching. The data-augmentation implied by Gibbs sampling generates posterior distributions for a latent coincident business-cycle index and extracts information from indicator variables, such as the slope of the yield curve. Sub- sample correlations between an aggregated "Europe" index and the national business-cycle indices from France, Germany and Italy are consistent with the claim that the European economies are becoming more harmonized over time, but there is no guarantee that this pattern will hold in the future.

Dunn, Wendy E.

PD November 1998. **TI** Unemployment Risk, Precautionary Saving, and Durable Goods Purchase Decisions. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/49; 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** D91, E21, E24. **KW** Precautionary Saving. Income Uncertainty. Durable Goods. Unemployment Risk.
AB In this paper household level data are used to explore whether unemployment risk is an important factor in the timing of consumers' durable goods purchase decisions. A theoretical model is presented in which both income uncertainty and household debt play a direct role, offering a potential

explanation for fluctuations in durable goods spending over the business cycle. The model predicts that consumers respond to increases in unemployment risk by postponing purchases of the durable good and reducing their spending on nondurable goods in order to bolster their precautionary buffer-stock of liquid assets. A prediction that the consumption decisions of older consumers are relatively less sensitive to unemployment risk is also validated. Another finding consistent with the theoretical model is that consumers who are observed to have bought a house despite facing high unemployment risk tend to have more liquid assets left over than home buyers who face ordinary unemployment risks.

Dunning, John

TI UK FDI and the Comparative Advantage of the UK. **AU** Nachum, Lilach; Dunning, John; Jones, Geferri.

Dupont, Dominique

PD April 1998. **TI** Equilibrium Price with Institutional Investors and with Naive Traders. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/23; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 18. **PR** no charge. **JE** G12, G14. **KW** Financial Economics. Information. Market Efficiency. Asset Pricing. Institutional Investors.

AB This paper uses an equilibrium model to study how institutional investors influence the volatility and the informativeness of asset prices. Institutional investors are assumed to be "rational" informed traders while individual investors are supposed to be "naive" informed traders, insofar as the former use the equilibrium price to extract information while the latter do not. Using a framework with a competitive market, multiple informed traders and one liquidity trader, the paper compares the informativeness and the volatility of the equilibrium price in an economy where the informed traders are naive and in one where they are rational. The model also studies how the informativeness and the volatility of the price react to changes in parameters such as the quality of the information of the informed traders, their aversion to risk, etc. The paper finally investigates how an increase in the number of informed traders affects the price variance.

Dustmann, Christian

PD November 1998. **TI** Language and the Earnings of Immigrants. **AU** Dustmann, Christian; van Soest, Arthur. **AA** Dustmann: Universitat Bielefeld. van Soest: Tilburg University. **SR** Centre for Economic Policy Research Discussion Paper: 2012; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F22, J24, J31, J61. **KW** International Migration. Language. Endogeneity. Labor Productivity. Immigrants.

AB A number of studies have established a positive effect of migrants' language proficiency on their productivity. It has been argued that these estimates are upward-biased because of the presence of unobserved heterogeneity. To obtain an accurate estimate of language effects is important since it has potentially important implications for migration policies. Using panel data on immigrants in Germany, we show that in self-reported measures of language proficiency measurement error is substantial. Our results suggest that measurement error is a more serious problem than unobserved heterogeneity, and that Least Squares underestimates the effect of speaking fluency on earnings.

PD February 1999. **TI** Wages, Experience and Seniority. **AU** Dustmann, Christian; Meghir, Costas. **AA** University College London. **SR** Centre for Economic Policy Research Discussion Paper: 2077; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 56. **PR** 5 dollars or 8 dollars or 8 euros. **JE** J24, J31, J41, J62. **KW** Wage Growth. Human Capital. Matching. Job Mobility. Learning by Doing.

AB This paper develops and estimates a human capital model of wage growth based on learning by doing. Learning by doing rates are assumed to be heterogeneous and firms offer different career structures in terms of the rate of acquisition of firm specific human capital. The model is estimated using a unique data set drawn from German administrative records and including a complete employment and earnings history for each worker in our sample. We find evidence of increased labor market attachments for individuals with higher returns to experience. This has important implications for the estimates. The estimated returns to experience are 2.7% a year. The returns to tenure are close to zero. Crucial identifying information is provided by plant closures.

Eaton, Jonathan

TI Borrowing With Unobserved Liquidity Constraints: Structural Estimation With An Application to Sovereign Debt. **AU** Adda, Jerome; Eaton, Jonathan.

Eichenbaum, Martin

TI Prospective Deficits and the Asian Currency Crises. **AU** Burnside, Craig; Eichenbaum, Martin; Rebelo, Sergio.

Eichengreen, Barry

TI Exchange Rate Volatility and Intervention: Implications of the Theory of Optimum Currency Areas. **AU** Bayoumi, Tamim; Eichengreen, Barry.

Eijffinger, Sylvester

TI Should Monetary Policy be Adjusted Frequently? **AU** Huizinga, Harry; Eijffinger, Sylvester.

El Babsiri, Mohamed

PD December 1996. **TI** Contemporaneous Asymmetry in GARCH Processes. **AU** El Babsiri, Mohamed; Zakoian, Jean-Michel. **AA** Babsiri: Caisse des Depots et Consignations. Zakoian: CREST-INSEE. **SR** Document de Travail du CREST: 9703; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 52. **PR** no charge. **JE** C13, C32, G12. **KW** Asymmetry. GARCH. Stationarity. Maximum Likelihood.

AB The paper proposes an original class of conditionally heteroskedastic models aimed to capture contemporaneous asymmetry. Not only do past up and down moves of stock market returns have different impacts on the conditional variance (dynamic asymmetry), but also, positive and negative changes are governed by different conditional variances (contemporaneous asymmetry). The paper gives a formal

content to asymmetry in a GARCH framework. The probabilistic structure of the proposed class of models is analyzed in detail: constraints sufficient to guarantee the covariance stationarity and existence of white noise solutions are developed; necessary and sufficient conditions for strict stationarity are presented. The paper also provides theoretical results on the quasi-maximum likelihood estimation in a context where the usual martingale difference assumption is ruled out. Finally, it is shown that the asymmetric hypotheses underlying the model are strongly supported by stock returns data, through an empirical analysis on the French stock market.

Eldor, Rafi

TI The Price of Options Illiquidity. **AU** Brenner, Menachem; Eldor, Rafi; Hauser, Shmuel.

Emons, Winand

PD December 1998. **TI** Product Differentiation and Price Competition Between a Safe and a Risky Seller. **AA** Universitat Bern. **SR** Centre for Economic Policy Research Discussion Paper: 2041; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 28. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D43, D82, L13, L15. **KW** Product Differentiation. Price-Quality Competition. Private Information. Oligopoly. Industrial Organization.

AB We consider a market served by a safe and a risky seller. While the expensive safe seller can solve the problems of all consumers, the cheap risky seller can help a consumer only with a certain probability. The risky seller's success probabilities are distributed across consumers and by the choice of her quality the risky seller determines the shape of this distribution. If the risky seller fails, a consumer ends up with the safe seller, paying for the service twice. We study the price-quality competition between the two providers. We show that the principle of maximum product differentiation does not hold in our model, i.e. the risky seller does not choose the minimum quality level in order to relax price competition.

English, William B.

PD December 1998. **TI** Bank Risk Rating of Business Loans. **AU** English, William B.; Nelson, William R. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/51; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 46. **PR** no charge. **JE** G21. **KW** Business Loans. Risk Ratings. Banking. Small Banks.

AB In recent years many banks have attempted to improve the measurement and management of credit risk by assigning risk ratings to business loans. Virtually all large banks now assign such ratings. However, until recently there has been little information on the use of risk ratings by smaller banks. Recent revisions to the Federal Reserve's Survey of Terms of Business Lending and telephone consultations with more than 100 banks on the survey panel provide data on the prevalence and precision of risk rating systems at banks of all sizes. The authors find that the use of risk rating systems is widespread, but that smaller banks generally have less detailed systems than do larger banks. In addition, the new survey data allow for the assessment of the relationships between loan risk ratings and loan terms. Not surprisingly, riskier loans generally carry higher interest rates, even after taking account of other loan terms.

Eshel, Illan

PD August 1996. **TI** Altruists, Egoists and Hooligans in a Local Interaction Model. **AU** Eshel, Illan; Samuelson, Larry; Shaked, Avner. **AA** Eshel: Tel Aviv University. Samuelson: University of Wisconsin. Shaked: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/341; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 36. **PR** no charge. **JE** C71, C72, D64, D83. **KW** Local Interaction Model. Prisoners Dilemma. Altruism. Egoism. Game Theory.

AB This paper shows, in a simple model of agents occupying locations around a circle, that if players choose their strategies in games by imitating successful players, and if there is a local or neighborhood structure to both the interaction between agents and their learning, then altruistic behavior can survive. The key to the survival of Altruists is that they tend to occur huddled together in concentrated groups. The benefits of the public goods supplied by Altruists are then enjoyed primarily by Altruists. This allows Altruists to earn higher payoffs than Egoists, who tend to be surrounded by other Egoists. The imitation process then induces agents who are close to Altruists to become Altruists, causing the groups of Altruists to expand. A group of Altruists is always a ripe target for invasion by a mutant Egoist, who will thrive on the public goods provided by the Altruists.

Estevao, Marcello M.

PD April 1998. **TI** Nominal Wage Rigidity and Real Wage Cyclicality. **AU** Estevao, Marcello M.; 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 Paper Series: 98/21; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 17. **PR** no charge. **JE** E24, E32, J22, J23. **KW** Wages. Employment. Labor Supply. Demand Shocks. Supply Shocks.

AB We discuss the ability of standard estimates of the correlation of wages and employment to measure the relative strength of aggregate demand and supply shocks, given that the choice of time period, deflator, and explanatory variables inherently biases the estimated cyclical coefficients toward identifying labor supply or demand. We determine that a closer look at the standard wage/labor correlation shows that it can neither provide information on the relative strength of supply and demand shocks, nor give an indication of the response of wages to aggregate demand shocks. Following this, we test the predictions of a neo-Keynesian model for the correlation of employment and wages using restrictions generated by the model to identify movements along or shifts in labor demand. Our results are consistent with the theory of nominal wage rigidity and we find no reason to reject the neo-Keynesian model based on the correlation of wages and employment.

Evans, Martin

TI Recasting Safety Nets: Reforming Social Assistance in Germany, Ireland and the United Kingdom.

AU O'Donoghue, Cathal; Evans, Martin.

Fahr, Rene

PD October 1998. TI Fairness as a Constraint on Trust in Reciprocity: An Experimental Observation. AU Fahr, Rene; Irlenbusch, Bernd. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/439; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. PG 13. PR no charge. JE C78, C91, D63. KW Fairness. Trust. Reciprocity. Social Norms. Experiments.

AB We describe three different treatments of a one-shot trust experiment in which we vary the outcome considered to be fair by inducing different entitlements. Subjects obtain property rights by performing a real effort, non-competitive working task. As expected, we find that the Trustees reciprocate significantly more the more the Trustors are entitled. However, our results unambiguously refute strategic reliance of the Trustors on the reciprocal behavior of the Trustees. Instead, the Trustors tend to aim at unilaterally implementing a fair outcome. Thus our observations provide strong evidence that the fairness norm is much more decisive than trust in the norm of reciprocity.

Faini, Riccardo

PD December 1998. TI Importing Jobs or Exporting Firms? A Close Look at the Labour Market Implications of Italy's Trade and Foreign Direct Investment Flows. AU Faini, Riccardo; Galeotti, Marzio; Falzoni, Anna M.; Helg, Rodolfo; Turrini, Alessandro. AA Faini: Universita di Brescia. Galeotti, Falzoni and Turrini: University of Bergamo. Helg: Libero Istituto Universitario Carlo Cattaneo. SR Centre for Economic Policy Research Discussion Paper: 2033; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 52. PR 5 pounds or 8 dollars or 8 euros. JE F15, F21, F23, F41, J31. KW International Trade. Foreign Direct Investment. Wages. Employment. Economic Integration.

AB International economic integration is often blamed for the deteriorating fortunes of unskilled workers in industrial countries. We look at the labor market impact of trade and foreign direct investment in the case of Italy. Our empirical framework allows for trade, technology and factor supply effects. We find that international trade did not contribute to Italy's labor market problems. Indeed, given that Italy holds quite a distinct pattern of trade specialization, compared to other industrialized countries, international integration as reflected in falling import prices may have boosted the demand for labor there. We also argue that the inability of the Mezzogiorno's economy to adjust to the changing international environment is one of the main stumbling blocks in Italy's economy. Finally, we find that greater firm's mobility may have weakened the power of trade unions and contributed to wage moderation.

Falaris, Evangelos M.

PD April 1998. TI Private and Public Sector Wages in Bulgaria. AA University of Delaware. SR University of Delaware, Department of Economics Working Paper: 98/07; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. PG 22. PR no charge. JE E24, J31, J45. KW Public Sector. Wage Differential. Returns to Education. Bulgaria.

AB I estimate private and public sector wage equations with 1995 Bulgarian data. I control for selectivity by two methods. Farmland received in the restitution program is an exogenous instrument that increases the probability of employment in the private sector. The probability of employment in the private sector decreases with experience, if a worker has higher education and if a worker is ethnic Bulgarian. In the private sector experience or schooling do not affect wages of women. Men in the private sector receive significant returns to experience that exceed those received in the public sector and comparable returns to higher education in both sectors. Ethnicity does not directly affect wages.

Falcetti, Elisabetta

PD June 1999. TI The Currency Denomination of Public Debt and the Choice of the Monetary Regime. AU Falcetti, Elisabetta; Missale, Alessandro. AA Falcetti: London School of Economics and DELTA. Missale: Universita di Firenze and Bank of England. SR London School of Economics, Centre for Economic Performance Discussion Paper: 427; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. PG 33. PR 5 pounds for individual copies; 95 pounds for yearly subscription. JE E58, F31, F33, H63. KW Central Banks. Debt Management. Fixed Exchange. ERM.

AB This paper examines the interactions between monetary regimes and public debt management. The analysis shows that delegation of monetary policy to an independent central bank is more effective in containing inflationary expectations than the use of foreign currency or price- indexed debt. If delegation of monetary policy is viable, the optimal policy is to issue conventional debt so as to reduce the cost of supply shocks and thus the need for policy accommodation. The role of debt management changes in a fixed exchange regime, since foreign currency debt may enhance the credibility of the peg. However, if a crisis nevertheless materializes, it would be worse than had foreign debt not been issued. Empirical evidence on the European Monetary System (EMS) appears to support this result. Probit estimates show that the decision to issue foreign currency debt significantly reduced the likelihood of an official realignment within the Exchange Rate Mechanism (ERM). However, conditional on a crisis taking place, those countries that increased the share of foreign currency debt experienced larger devaluation sizes.

Fallick, Bruce C.

PD February 1998. TI Part-Time Work and Industry Growth. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/16; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington,. DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. PG 17. PR no charge. JE D92, J22, J23, J29. KW Employment. Part-Time Work. Industry Growth.

AB The popular impression that employment in the U.S. has become more part-time in recent years may be driven by a tendency for faster-growing industries to use relatively more part-time work. This paper documents this association for the

period 1983-1993, and demonstrates that it is robust to questions about how to measure industry growth and part-time intensity. A similar relationship can be discerned in several other countries. However, judging from data from the 1930's on, the association does not emerge clearly in the United States until the 1980's, suggesting that part-time work and industry growth are not intrinsically related. Moreover, both the relative growth rates and the relative part-time intensities of industries have changed over the post- war period. There is no indication that part-time work in fast-growing industries is more likely to be involuntary, although this may be true for entering workers, nor has there been any trend in that direction.

Falzoni, Anna M.

TI Importing Jobs or Exporting Firms? A Close Look at the Labour Market Implications of Italy's Trade and Foreign Direct Investment Flows. **AU** Faini, Riccardo; Galeotti, Marzio; Falzoni, Anna M.; Helg, Rodolfo; Turrini, Alessandro.

Faure-Grimaud, Antoine

PD December 1998. **TI** Dynamic Adverse Selection and Debt. **AU** Faure-Grimaud, Antoine; Chemla, Gilles. **AA** Faure-Grimaud: London School of Economics. Chemla: University of British Columbia. **SR** Centre for Economic Policy Research Discussion Paper: 2037; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D42, D82, G32, L14. **KW** Adverse Selection. Durable Goods. Ratchet Effect. Renegotiation. Debt.

AB In many long-term relationships, parties may be reluctant to reveal their private information in order to benefit from their informational advantage in the future. We point out that the strategic use of debt by an uninformed party induces another party to reveal private information. Our argument, which is consistent with casual observation, is based on the idea that (renegotiable) debt is a credible commitment to end the long-term relationship if information is not revealed. We show that the strategic advantage of debt increases with good durability and we briefly address the financing decision of a regulated firm.

Feenstra, Robert C.

TI Understanding the Home Market Effect and the Gravity Equation: The Role of Differentiating Goods. **AU** Markusen, James R.; Rose, Andrew K.; Feenstra, Robert C.

Feldman, Maryann P.

TI Innovation in Cities: Science-Based Diversity, Specialization and Localized Competition. **AU** Audretsch, David B.; Feldman, Maryann P.

Felli, Leonardo

TI Revenue Efficiency and Change of Control: The Case of Bankruptcy. **AU** Cornelli, Francesca; Felli, Leonardo.

Fender, John

PD April 1998. **TI** Entrepreneurship, Credit Constraints and Education: A Model of Interdependent Loan Decisions. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/13; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 36. **PR** 2 pounds ($4); no charge to academics. **JE** D91, E51, E62, H52. **KW** Education. Entrepreneurship. Credit Rationing. Overlapping Generations.

AB A macroeconomic model with endogenous credit constraints due to a moral hazard problem in lending is developed. There are two sequential borrowing decisions; first, an agent may wish to borrow to become educated and secondly, an educated agent may wish to borrow to become an entrepreneur. The possibility of rationing of entrepreneurship loans may affect the likelihood that loans are made for education purposes. This idea is incorporated in a three-period overlapping generations model with heterogeneous agents, the comparative statics properties of which are explored. We also consider the possible role of public policy in remedying the problem.

PD July 1998. **TI** The Macroeconomic Effects of Local Government Expenditure. **AU** Fender, John; Watt, P. A. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/17; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 41. **PR** 2 pounds ($4); no charge to academics. **JE** E62, H11, H77. **KW** Government Expenditure. Macroeconomic Effects. Local Government. Central Government.

AB This paper reviews arguments for and against the central government controlling local government expenditure for macroeconomic purposes.

Ferrara, Laurent

PD October 1998. **TI** Analyse d'Intervention et Previsions. Problematique et Application a des Donnees de la RATP. **AU** Ferrara, Laurent; Guegan, Dominique. **AA** Ferrara: Universite de Paris, CNRS. Guegan: Universite de Reims, CREST-ENSAE. **SR** Document de Travail du CREST: 9842; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 26. **PR** no charge. **JE** C22, L92. **KW** Time Series. Intervention Analysis. Measure of Impact.

AB RATP's time series of traffic or ticket sales are often affected by particular events. When modeling a series, the intervention analysis (Box and Tiao (1975)) allows one to take into account the various external interventions and to give a measure of their impact on the series. The authors analyze the effects of this intervention technique for various functions and apply this approach to real series.

Feve, Patrick

PD 1998. **TI** Feedback Covariates Unit Root Tests: An Application to the Sustainability of Fiscal Policy. **AU** Feve, Patrick; Henin, Pierre-Yves; Jolivaldt, Philippe. **AA** Feve: Universite de Nantes, LEN-C3E and CEPREMAP. Henin: CEPREMAP, MAD, and Universite Paris I. Jolivaldt: CEME and Universite Paris I. **SR** CEPREMAP Discussion Paper: 9810; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 25. **PR** between 25-35 francs. **JE** C12, C22, E62, H62. **KW** Sustainability. Unit Root. Covariates. Feedback Mechanism.

AB Sustainability tests often ignore the joint dynamics of stock and flow variables. This paper shows that such a practice leads to inappropriate statistical inference, and that taking into

account the joint dynamics when testing for unit roots induces large power gains. This paper introduces a new statistic, denoted FADF (Feedback Augmented Dickey Fuller), which fully combines feedback effects and covariates. The paper derives the limit distribution of the test statistic and comments on the asymptotic power functions. A simulation study and an empirical application based on U.S. public debt sustainability illustrate the potential of this approach.

PD June 1998. **TI** Assessing Effective Sustainability of Fiscal Policy Within the G-7. **AU** Feve, Patrick; Henin, Pierre-Yves. **AA** Feve: Universite de Nantes, LEN-C3E and CEPREMAP. Henin: CEPREMAP, MAD, and Universite Paris I. **SR** CEPREMAP Discussion Paper: 9815; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 32. **PR** between 25-35 francs. **JE** C12, C22, H62, H63. **KW** Deficit Sustainability. Policy Feedback. Unit Roots.
AB This paper introduces a new unit root test, using "Feedback Covariates", in order to test for sustainability of fiscal policy within the G-7. Non-sustainability is considered as the null hypothesis comprising both a unit root in the debt process and the absence of a deficit correction in response to inherited debt. The asymptotic distribution of the FADF (Feedback Augmented Dickey-Fuller) statistic is characterized under both the null and the near unit root alternative, and the distribution is compared with that related to single equation approaches. This test is applied to public debt normalized by GDP, rather than by a discount factor, consistent with a definition of "effective sustainability" which focuses on policy implications. The null hypothesis of non-sustainability still cannot be rejected for four countries. Nevertheless, the results confirm the potential of the approach in terms of power gains and show that standard unit root tests lead too often to the acceptance of the null hypothesis of non- stationarity.

Fielding, Antony

PD September 1998. **TI** Value-Added Analysis for Cross-Classified Multilevel Data. **AU** Fielding, Antony; Spencer, Neil H. **AA** Fielding: University of Birmingham. Spencer: University of Hertfordshire. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/15; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 9. **PR** 2 pounds ($4); no charge to academics. **JE** C13, C21, C51, I21. **KW** Cross-Classified Data. Multilevel Modeling. Endogeneity. Education.
AB In this paper we examine educational data which has a cross- classified structure. A cross-classified value-added multilevel model is proposed for these data and the problems of estimation are discussed in relation to the problem of an endogenous regressor. A consistent estimation strategy is described and implemented alongside the cross- classified multilevel modeling. The results are contrasted with an analysis which only ignores the endogeneity problem, an analysis which only ignores the cross-classified nature of the data and an analysis which ignores both the endogeneity problem and the cross-classified nature of the data. We conclude that it is important to carry out a modeling strategy which allows for both the cross-classified nature of the data and the problem of the endogenous regressor.

PD October 1998. **TI** Why Use Arbitrary Points Scores: Ordered Categories in Models of Educational Progress. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/23; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 31. **PR** 2 pounds ($4); no charge to academics. **JE** C51, C69, I21. **KW** Educational Progress. Hierarchical Models. Random Effects. Ordered Categories.
AB Graded educational qualifications are commonly treated using arbitrary points scores in modeling educational progress. This paper discusses some of the problems of such practices from a statistical and substantive viewpoint. Random effects models of ordered categorizations are suggested as a preferable way of handling such issues. The paper utilizes the macros developed by the Multilevel Models Project and built into the programme MLwiN. This is based around Goldstein's iterative generalized least squares procedures for hierarchical models. The results of this modeling procedure are contrasted with linear models based on a variety of scoring schemes. The application concerns the modeling of progress from baseline assessment to England and Wales National Curriculum Key Stage 1 in the City of Birmingham Education Department's primary schools. Since baseline assessment became mandatory for all schools in England and Wales in September 1998 there is likely to be considerable future interest in the substantive issues. Diagnostic and goodness of fit issues are also briefly discussed. The paper concludes by arguing that results from ordered category models are likely to be more readily interpretable by teachers and educationalists, than ones based on linear models and arbitrary points scores.

PD October 1998. **TI** Teaching Groups as Foci for Evaluating GCE Advanced Level Cost- Effectiveness: Some Practical Methodological Innovations. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/24; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 7. **PR** 2 pounds ($4); no charge to academics. **JE** C51, I21, I22. **KW** Education. Cost Effectiveness. Teaching Groups. Teacher Effectiveness.
AB This paper reviews hierarchical models of educational effectiveness. The concern is with evaluating the performance of students on GCE Advanced Level courses at the level of the subject group and relating this to teaching group costs. Since students belong to several groups, standard hierarchical modeling which assumes that responses at the individual level are independent is precluded. Thus models cross- classify students and groups and use the procedures of Goldstein and Rasbash (1994). The data arises from 6020 subject entries for 2280 candidates in 525 teaching groups from 15 institutions. The impact of ignoring the cross-classification is examined. A further cost- effectiveness issue is differential teacher effectiveness, since salaries are the largest component of costs. Hill and Rowe (1996) attribute lack of work on teacher effectiveness to the fact that classes are exposed to several teachers. This paper uses three way cross- classified models with random teacher effects weighted by proportions of time the class was taught by particular teachers. Teachers cover several groups, but although the data is extremely unbalanced it proves possible to disentangle teacher variability from that associated with subject groups. Teacher variation is shown to be considerable. Traditional explanations involving age, experience, training, and qualifications appear unimportant.

Figlewski, Stephen

PD November 1998. **TI** Market Risk and Model Risk for a Financial Institution Writing Options. **AU** Figlewski, Stephen; Green, Clifton T. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/01; 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** G13, G21, G23, G24. **KW** Option Pricing. Model Risk. Volatility. Risk Management.

AB Trading in derivatives involves heavy use of quantitative models for valuation and risk management. These models are necessarily imperfect, and when options are involved, the models require a volatility input that must be forecasted, subject to error. This creates "model risk". This paper conducts an empirical simulation, with and without hedging, using historical data from 1976-1996 for several important markets. The object is to develop a quantitative assessment of the extent to which the different sources of model risk can be expected to affect the kind of basic option writing strategy that might be followed by a bank or another financial institution. Specifically, the authors explore the following problem: If a bank or similar financial institution writes standard European calls and puts using the appropriate variant of the Black-Scholes model with a volatility forecast computed optimally from historical data, what are the risk and return characteristics of the trade?.

Fisher, Anthony C.

TI Irreversibility, Uncertainty, and Catastrophic Global Warming. **AU** Narain, Urvashi; Fisher, Anthony C.

Fisher, Mark

PD August 1998. **TI** Consumption and Asset Prices with Recursive Preferences. **AU** Fisher, Mark; Gilles, Christian. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/40; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 48. **PR** no charge. **JE** E21, G11, G12. **KW** Recursive Preferences. Differential Utility. Consumption. Portfolio Choice. Asset Pricing.

AB This paper analyzes consumption and asset pricing with recursive preferences given by Kreps-Porteus stochastic differential utility (K-P SDU). The authors show that utility depends on two state variables: current consumption and a second variable (related to the wealth- consumption ratio) that captures all information about future opportunities. This representation of utility reduces the internal consistency condition for K-P SDU to a restriction on the second variable in terms of the dynamics of a forcing process. Solving the model for (i) optimal consumption, (ii) the optimal portfolio, and (iii) asset prices in general equilibrium amounts to finding the process for the second variable that satisfies this restriction. The authors show that the wealth-consumption ratio is the value of an annuity when the numeraire is changed from units of the consumption good to units of the consumption process, and they characterize certain features of the solution in a non-Markovian setting.

Flandreau, Marc

PD October 1998. **TI** Cavaet Emptor: Coping With Sovereign Risk Without the Multilaterals. **AA** Flandreau: CNRS and OFCE. **SR** Centre for Economic Policy Research Discussion Paper: 2004; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 48. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F34, G21, H63, N23. **KW** Rating. Sovereign Risk. Risk Models. Banking. Economic History.

AB This paper studies how private banks dealt with sovereign risk before World War I. At that time there was no multilateral institution to bail out borrowers in default and sovereign rating had not yet developed. All the burden of information collection and processing was borne out by individual banks. The authors focus on the experience of Credit Lyonnais, which grew over the period into the largest international bank in a country that was the second largest world creditor. In 1871, Credit Lyonnais set up a Service d'Etudes Financieres (SEF), a research department whose aim was to study borrowing countries. The lending spree of the late 1880's, and the bust which ensued, provided the impetus for a massive expansion of SEF, which then developed techniques to analyze sovereign risks. The authors argue that these methods are an essential aspect of the market mechanism as it operated before World War I.

Flannery, Mark J.

TI Comparing Market and Supervisory Assessments of Bank Performance: Who Knows What When? **AU** Berger, Allen N.; Davies, Sally M.; Flannery, Mark J.

Fluck, Zsuzsanna

PD June 1998. **TI** Where Does the Money Come From? The Financing of Small Entrepreneurial Enterprises. **AU** Fluck, Zsuzsanna; Holtz-Eakin, Douglas; Rosen, Harvey S. **AA** Fluck: New York University. Holtz-Eakin: Syracuse University. Rosen: Princeton University. **SR** New York University, Salomon Center Working Paper: S/98/32; 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** 30. **PR** $5.00 each; $100.00 yearly subscription. **JE** D92, G21, G24, G32. **KW** Financing. Small Enterprises. Corporate Finance. Entrepreneurs.

AB Using data from the Wisconsin Entrepreneurial Climate Study, we study the sources of firms' finance during the very early stages of their lives. Our focus is the evolution of the mix of financial capital from "insiders" and "outsiders" as firms age. We find that at the beginning of firms' life cycles, the proportion of funds from internal sources increases with age, while the proportion from banks, venture capitalists, and private investors declines. There is also evidence that these patterns eventually reverse themselves, with the proportion of insider finance ultimately declining and the proportion of outsider finance increasing with age. We argue that these findings are consistent with elements of both reputation-based and monopoly-lender theories of firm finance.

Ford, J. L.

TI Financial Development, Liberalisation and Economic Development in Indonesia, 1966 - 1996: Cointegration and Causality. **AU** Agung, Juda; Ford, J. L.

PD April 1998. TI Lottery Designs to Discriminate between Shackle's Theory, Expected Utility Theory and Non-Expected Utility Theories. AU Ford, J. L.; Ghose, Sudip. AA University of Birmingham. SR University of Birmingham, Department of Economics Discussion Paper: 98/10; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. PG 26. PR 2 pounds ($4); no charge to academics. JE C91, D81, D84. KW Potential Surprise. Focus-Outcomes. Perspective Theory. Non-Expected Utility.
AB Shackle's theory of decision-making under uncertainty and the background to it are outlined. Its major prediction about action-choice is set out and proved. An experimental design to test its veracity is described; a design that it is demonstrated will make it possible to discriminate between Shackle's theory (and its clone, Ford's perspective theory) and non-expected utility theories. A means of distinguishing between Shackle's theory and perspective theory is noted. For those subjects whose selections are incompatible with the Shacklean paradigms, heuristic procedures are outlined for effecting a distinction between the consequent alternative theories.

TI Yield Spreads and Short-Term Interest Rate Movements in the Tokyo Money Market and the Actions of the Bank of Japan: November 1993 to March 1996. AU Cadle, P. J.; Ford, J. L.; Kataoka, Yukie.

Foresi, Silverio

TI Discrete-Time Models of Bond Pricing. AU Backus, David; Foresi, Silverio; Telmer, Chris.

Foster, Michael E.

TI Could It Be True After All? AFDC Benefits and Non-Marital Births to Young Women. AU Hoffman, Saul D.; Foster, Michael E.

Fougere, D.

PD 1998. TI Formation Continue et Carrieres Salariales: Une Evaluation sur Donnees Individuelles. AU Fougere, D.; Goux, Dominique; Maurin, Eric. AA CREST-INSEE. SR Document de Travail du CREST: 9843; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. PG 28. PR no charge. JE J24, J31, J41, J63. KW Continuous Training. Wages. Employer-Employee Data. Simultaneous Equations.
AB This paper evaluates the impact of continuous training by firms on wages and interfirm mobility. For that purpose, the authors use the survey "Formation et Qualification Professionnelle" (FQP) collected by INSEE (Paris) in 1993. This survey registers the identities of firms employing the sampled workers before and after the continuous training period. Thus it allows the authors to match the workers dataset with an INSEE data file containing information on firms. These data on firms can be used as instrumental variables for the identification of the structural parameters of a simultaneous equation model in which the access to continuous training, the mobility decision, and the wages are the endogenous variables. The estimates show that (1) continuous training has no significant effect on the wage paid by the firm providing training, (2) it decreases the wage loss associated with an interfirm mobility, (3) the mobility decision is not significantly affected by the wage differential.

Frank, Andras

PD 1998. TI On the Bipartite Travelling Salesman Problem. AU Frank, Andras; Korte, Bernhard; Triesch, Eberhard; Vygen, Jens. AA Frank: Eotvos University. Korte and Vygen: University of Bonn. Triesch: RWTH Aachen. SR Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98866; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. PG 6. PR no charge. JE C40, C60, D20, L23. KW Production Planning. Traveling Salesman Problem. Assignment Problem. Square Inequality. Hamiltonian Walks.
AB We consider a production planning problem which combines an assignment problem with a traveling salesman problem (TSP). The most interesting special case is a symmetric TSP in a bipartite graph. For this problem we find a 2-factor approximation algorithm if the distances obey a bipartite analogue of the triangle inequality.

PD April 1999. TI An Orientation Theorem with Parity Conditions. AU Frank, Andras; Jordan, Tibor; Szigeti, Zoltan. AA Frank: Eotvos University. Jordan: University of Aarhus. Szigeti: University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 99884; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. PG 8. PR no charge. JE C44, C60. KW Orientation. Graphs. Combinatorial Optimization. Connectivity. Parity.
AB Given a graph G = (V,E) and a set T which is contained in or equivalent to V, an orientation of G is called T-odd if precisely the vertices of T get odd in-degree. We give a good characterization for the existence of a T-odd orientation for which there exist k edge-disjoint spanning arborescences rooted at a prespecified set of k roots. Our result implies Nash-Williams' theorem on covering the edges of a graph by k forests and a (generalization of a) theorem due to Nebesky on upper embeddable graphs.

Franke, Gunter

PD March 1999. TI When are Options Overpriced? The Black-Scholes Model and Alternative Characterisations of the Pricing Kernel. AU Franke, Gunter; Stapleton, Richard C.; Subrahmanyam, Marti G. AA Franke: University of Konstanz. Stapleton: Universtiy of Strathclyde. Subrahmanyam: New York University. SR New York University, Salomon Center Working Paper: S/99/15; 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 25. PR $5.00 each; $100.00 yearly subscription. JE G13. KW Option Pricing. Pricing Kernel. Black-Scholes Model. Elasticity. Brownian Motion.
AB An important determinant of option prices is the elasticity of the pricing kernel used to price all claims in the economy. This paper first shows that for a given forward price of the underlying asset, option prices are higher when the elasticity of the pricing kernel is declining than when it is constant. The authors then investigate the implications of the elasticity of the pricing kernel for the stochastic process followed by the underlying asset. Given that the underlying information process follows a geometric Brownian motion, they demonstrate that constant elasticity of the pricing kernel is equivalent to a Brownian motion for the forward price of the

underlying asset, so that the Black- Scholes formula correctly prices options on the asset. Declining elasticity implies that the forward price process is no longer a Brownian motion: it has higher volatility and exhibits autocorrelation. In this case, the Black-Scholes formula underprices all options.

Frey, Rudiger

PD January 1997. **TI** Derivative Asset Analysis in Models with Level-Dependent and Stochastic Volatility. **AA** ETH Zentrum. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/401; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 28. **PR** no charge. **JE** G12, G13. **KW** Option Pricing. Black-Scholes Model. Stochastic Volatility. Incomplete Markets. Derivatives.

AB This survey discusses models with level-dependent and stochastic volatility from the viewpoint of derivative asset analysis. Both classes of models are generalizations of the classical Black-Scholes model; they have been developed in an effort to build models that are flexible enough to cope with the known deficits of the classical Black-Scholes model. The authors start by briefly recalling the standard theory for pricing and hedging derivatives in complete frictionless markets and the classical Black-Scholes model. After a review of the known empirical contradictions to the classical Black-Scholes model the authors consider models with level-dependent volatility. Most of this survey is devoted to derivative asset analysis in stochastic volatility models. In the context of stochastic volatility models the authors discuss several recent developments in the theory of derivative pricing under incompleteness, and they review analytical and numerical approaches to the actual computation of option values.

PD June 1997. **TI** Bounds on European Option Prices under Stochastic Volatility. **AU** Frey, Rudiger; Sin, Carlos A. **AA** Frey: ETH Zentrum. Sin: University of Cambridge. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/405; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 12. **PR** no charge. **JE** G12, G13. **KW** Option Pricing. Stochastic Volatility. European Options.

AB In this paper we consider the range of prices consistent with no arbitrage for European options in a general stochastic volatility model. We give conditions under which infimum respectively the supremum of the possible option prices are equal to the intrinsic value of the option or to the current price of the stock and show that these conditions are satisfied in most of the stochastic volatility models from the financial literature.

PD June 1998. **TI** Superreplication in Stochastic Volatility Models and Optimal Stopping. **AA** ETH Zentrum. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/435; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 19. **PR** no charge. **JE** G12, G13. **KW** Stochastic Volatility. Optimal Stopping. Incomplete Markets. Superreplication. Derivatives.

AB Stochastic volatility models have been introduced in order to deal with the well-known empirical deficiencies of the standard Black-Scholes model. These models are incomplete which raises new questions for the pricing and the hedging of derivative securities. In this paper, we discuss the superreplication of derivatives in a stochastic volatility model under the additional assumption that the volatility follows a bounded process. We characterize the value process of our superhedging strategy by an optimal stopping problem in context of the Black-Scholes model, which is similar to the optimal stopping problem that arises in the pricing of American-type derivatives. Our proof is based on probabilistic arguments. We study the minimality of these superhedging strategies. As most of the previous work on superhedging under stochastic volatility uses a PDE approach we discuss PDE-characterizations of the value function of our superhedging strategy. We illustrate our approach by certain examples and simulations.

Furfine, Craig

PD March 1998. **TI** Interbank Payments and the Daily Federal Funds Rate. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/31; 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, G21. **KW** Banking. Reserve Management. Federal Funds Rate. Interbank Payments.

AB This paper develops a model of bank reserve management and federal funds rate determination that incorporates the role of interbank payments. In the model, uncertainty in the receipt of payments generates a precautionary demand for bank reserves as banks face both reserve requirements and penalties for overnight overdrafts. Days with higher payment volume are assumed to create more uncertainty in a bank's reserve account that accentuates this precautionary motive. As a result, upward pressure is placed on the equilibrium funds rate. Implications of the model are then estimated using a panel of large banking institutions. Using the parameter estimates, simulations of the model suggest that patterns in payment activity explain many intra-maintenance period movements in both the level and volatility of the federal funds rate.

Gabszewicz, Jean J.

PD September 1998. **TI** Taxing Market Power. **AU** Gabszewicz, Jean J.; Grazzini, Lisa. **AA** Univesite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9848; 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** C72, D51, H30, L13. **KW** Imperfect Competition. Taxation. Strategic Market Games. Oligopoly. Exchange.

AB We investigate the effectiveness of tax and transfer policies in correcting market distortions when the economy is imperfectly competitive. We perform this analysis in the context of an exchange model representing a bilateral oligopoly situation, which constitutes a particular example of a Shapley-Shubik strategic market game.

Galeotti, Marzio

TI Importing Jobs or Exporting Firms? A Close Look at the Labour Market Implications of Italy's Trade and Foreign Direct Investment Flows. **AU** Faini, Riccardo; Galeotti, Marzio;

Falzoni, Anna M.; Helg, Rodolfo; Turrini, Alessandro.

Galor, Oded

PD September 1998. **TI** Population, Technology and Growth: From the Malthusian Regime to the Demographic Transition. **AU** Galor, Oded; Weil, David N. **AA** Brown University. **SR** Centre for Economic Policy Research Discussion Paper: 1981; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 60. **PR** 5 pounds or 8 dollars or 8 euros. **JE** J13, O11, O33, O40. **KW** Fertility. Growth. Technological Change. Malthusian Trap. Demographic Transition.

AB This paper develops a unified model of growth, population, and technological progress that is consistent with long-term historical evidence. The economy endogenously evolves through three phases. In the Malthusian regime, population growth is positively related to the level of income per capita. Technological progress is slow and is matched by proportional increases in population, so that output per capita is stable around a constant level. In the post-Malthusian regime, the growth rates of technology and total output increase. Population growth absorbs much of the growth of output, but income per capita does rise slowly. The economy endogenously undergoes a demographic transition in which the traditionally positive relationship between income per capita and population growth is reversed. In the Modern Growth regime, population growth is moderate and income per capita rises rapidly.

Gang, Ira N.

TI Temporary Migrants from Egypt: How Long Do They Stay Abroad? **AU** Bauer, Thomas; Gang, Ira N.

Gao, Bin

PD September 1998. **TI** The Valuation of American Barrier Options Using the Decomposition Technique. **AU** Gao, Bin; Huang, Jing-zhi; Subrahmanyam, Marti G. **AA** Gao: University of North Carolina. Huang: Penn State University. Subrahmanyam: New York University. **SR** New York University, Salomon Center Working Paper: S/98/37; 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** 19. **PR** $5.00 each; $100.00 yearly subscription. **JE** C63, G13. **KW** Barrier Options. Hedging. Exercise Boundary. Computational Efficiency. Option Pricing.

AB This paper proposes an alternative approach for pricing and hedging American barrier options. The authors obtain an analytic representation for the value and hedge parameters of barrier options, using the decomposition technique of separating the European option value from the early exercise premium. This allows for the identification of some new put-call "symmetry" relations and the homogeneity in price parameters of the optimal exercise boundary. These properties can be utilized to increase the computational efficiency of the authors' method in pricing and hedging American options. Implementation of the obtained solution indicates that the proposed approach is both efficient and accurate in computing option values and option hedge parameters. The numerical results also demonstrate that the approach dominates the existing lattice methods in accuracy and efficiency. In particular, the method is free of the difficulty that existing numerical methods have in dealing with spot prices in the proximity of the barrier.

Garbade, Kenneth D.

TI An Institutional Innovation to Reduce the Agency Costs of Public Corporate Bonds. **AU** Amihud, Yakov; Garbade, Kenneth D.; Kahan, Marcel.

PD September 1998. **TI** Managerial Discretion and the Contingent Valuation of Corporate Securities. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/98/39; 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** 13. **PR** $5.00 each; $100.00 yearly subscription. **JE** G13, G33, G34, G35, M10. **KW** Corporate Securities. Contingent Claims. Corporate Governance. Organizational Form. Discretionary Acts.

AB Conventional and convertible debt, common stock and other corporate securities are sometimes analyzed as contingent claims whose value depends on the contemporaneous value of the enterprise as a whole. However, corporate securities values also depend on an immense variety of management options embedded in the corporate form of organization. Corporate managers must decide whether to call debt for early redemption, how much and what kind of a dividend to pay, and so on. Each of these decisions can be associated with an optimization problem whose objective is maximization of shareholder value. A discretionary act of the firm is identified by solving the associated optimization problem. This paper suggests that many of the most important management options embedded in corporate securities are ignored in contingent value analyses, that other options are treated summarily, and that the optimization problems associated with some of the most explicit options have been incompletely specified.

Garcia Serrano, Carlos

PD February 1999. **TI** Labour Reallocation, Labour Flows and Labour Market Institutions: Evidence from Spain. **AU** Garcia Serrano, Carlos; Jimeno, Juan Francisco. **AA** Garcia Serrano: Universidad de Alcala de Hanares. Jimeno: Universidad de Alcala de Hanares and FEDEA. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 414; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 32. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** J61, J63, J64, J68. **KW** Labor Reallocation. Worker Flows. Job Flows. Labor Institutions.

AB The main objective of this paper is to learn from the Spanish experience, first, to what extent labor reallocation is nowadays higher than in the seventies and eighties, and second, the role of labor market institutions in easing or hindering the process of labor reallocations. The authors approach the measurement of labor reallocation from two perspectives. First, they follow the traditional macroeconomic growth across sectors, regions, and occupations. Second, they document the evolution of worker and job flows, and estimate the effects of some labor market institutions on worker flows from pooled cross-sections of Spanish sectors and regions for the period 1987-1997. The main findings are: I) job reallocation was highest during the mid-eighties, while during the nineties job reallocation seems to have returned to the levels of the early and late eighties II) worker turnover has noticeably increased

III) job reallocation (job creation and job destruction) explains one fourth of total worker turnover, the rest being due to rotation of workers through a given set of employment positions and IV) fixed-term employment, by increasing rotation, is the main labor market institution driving worker flows.

Garcia, Gillian G. H.

PD April 1999. **TI** Deposit Insurance: A Survey of Actual and Best Practices. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/54; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 27. **PR** not available. **JE** G18, G21, G22, G28, G30. **KW** Adverse Selection. Agency Problems. Moral Hazard. Political Interference. Regulatory Capture.

AB The paper surveys the characteristics of explicit systems of deposit insurance in 68 countries. It compares these actual practices with a set of best practices that has been adopted by IMF staff for their advice to member countries. These best practices seek to establish a system of deposit insurance that provides incentives for all parties -- whether they are directly or indirectly affected by the guarantee -- to keep the financial system sound. The paper discerns some convergence toward best practices in recent years, but notes several areas where improvements in the incentive structure are still necessary.

Garg, Ashish

PD March 1998. **TI** Sibling Rivalry. **AU** Garg, Ashish; Morduch, Jonathan. **AA** Garg: Boston Consulting Group. Morduch: Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 630; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 25. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** I12, J13, J16, J24, O12. **KW** Siblings. Household Models. Human Capital. Gender. Ghana.

AB Nearly all economic models of the household have implications for how characteristics of the children in a family affect human capital investments in their siblings. Much evidence suggests that perceived returns to investing in sons is higher than investing in daughters in many economies. When this is so, implicit rivalries will emerge, even where no family member behaves strategically. As a result, children will fare better when a greater fraction of their siblings are female rather than male. This tendency is tempered by positive spillovers to human capital investments that produce opposite results. Data from a large household-level data set from Ghana yields predictions that enrollments in secondary schooling improve by over 50% when children move to all- sister households from all-brother households. Similarly, measures of health outcomes would increase by 30% to 40% under the same change. The results suggest that improving market conditions can greatly increase human capital investments.

Garratt, Anthony

PD June 1998. **TI** A Long-Run Structural Macroeconometric Model of the UK. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol. **AA** Garratt, Pesaran, and Shin: University of Cambridge. Lee: University of Leicester. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9812; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 28. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C32, E10, E24. **KW** Long-Run VAR. Impulse Response. Macroeconomic Modeling. Persistence Profiles.

AB A small quarterly macroeconometric model of the United Kingdom is estimated over the period 1965Q1 to 1995Q4 in eight core variables: domestic and foreign outputs, domestic and foreign prices (both measured relative to oil prices), the nominal effective exchange rate, nominal domestic and foreign interest rates and real money balances. The model is based on long-run relations from economic theory embodied in an otherwise unrestricted Vector Autoregression (VAR) framework. A main aim is to develop a core model with a transparent and theoretically coherent foundation. Tests of restrictions on the long-run relations of the model are presented. The dynamic properties of the model are illustrated through the use of persistence profiles and generalized impulse responses, which are invariant to the ordering of the variables in the VAR.

PD October 1998. **TI** A Structural Cointegrating VAR Approach to Macroeconometric Modelling. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol. **AA** Garratt and Pesaran: University of Cambridge. Lee: University of Leicester. Shin: University of Edinburgh. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9823; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 21. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C32, C51, C53, E17. **KW** Structural Cointegration. VAR. Macroeconomic Modeling. Impulse Responses.

AB This paper discusses the "structural cointegrating Vector Autoregression (VAR)" approach to macroeconometric modeling and compares it to other approaches currently followed in the literature, namely the large-scale simultaneous equation macroeconometric models, the structural VAR's, and the dynamic stochastic general equilibrium models. The structural co-integrating VAR approach has the attractive features that the estimated long-run relationships embedded in the model are theory consistent, and have a clear economic interpretation, and yet the short-run dynamics are flexibly estimated within a VAR framework. The approach is illustrated using a small quarterly macroeconomic model of the UK, and its use in impulse response analysis and probability forecasting is discussed.

PD November 1998. **TI** An Empirical Reassessment of Target-Zone Nonlinearities. **AU** Garratt, Anthony; Psaradakis, Zacharias; Sola, Martin. **AA** Garratt: University of Cambridge. Psaradakis and Sola: Birkbeck College. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9825; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 9. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C11, C22, F31. **KW** Bootstrap. Nonlinearity. Recursive Tests. Target Zones.

AB This paper investigates the presence of target-zone nonlinearities in the Pound Sterling/Deutsche Mark exchange

rate for the period of the UK European Exchange Rate Mechanism (ERM) membership, using data with frequency of every two days. Tests against general nonlinear specifications as well as specifications consistent with a stochastic devaluation risk model of exchange rate target zones are carried out using recursive techniques. In addition, the significance of nonlinear effects is analyzed within a recursive Bayesian frame-work. The authors find evidence of target-zone nonlinearities in the whole sample, but the recursive analysis yields support for the presence of such nonlinearities only in specific subsamples. The results imply that the reduction in the UK inflation was most likely a consequence of contractionary policies rather than of the expectational effects of the target zone.

Gaspar, Zsolt

PD September 1998. **TI** Square Grids with Long "Diagonals" **AU** Gaspar, Zsolt; Radics, Norbert; Recski, Andras. **AA** Gaspar and Radics: Technical University of Budapest. Recski: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98872; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 13. **PR** no charge. **JE** C44, C60. **KW** Grids. Rigidity. Frameworks. Graphs. Polyhedral Methods.

AB Bolker and Crapo gave a graph theoretical model of square grid frameworks with diagonal rods of certain squares. Baglivo and Graver solved the problem of tensegrity frameworks where diagonal cables may be used in the square grid to make it rigid. The problem of one-story buildings in both cases can be reduced to the planar problems. These results are generalized if some longer rods, respectively some longer cables are also permitted.

Gassner, Katharina

PD October 1998. **TI** An Estimation of UK Telephone Access Demand Using Pseudo-Panel Data. **AA** University of Lausanne and London School of Economics. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9817; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 22. **PR** no charge. **JE** D12, D18, D62, L51, L96. **KW** Universal Service. Telephone Access. Pseudo-Panel Data. Telecommunications. Consumer Protection.

AB The policy of rebalancing tariffs in the newly liberalized telecommunications market has given rise to concerns about universal service issues. The rise of connection and rental charges threatens to increase the number of disconnections and burden low-income groups in a disproportionate manner. In order to access the validity of these fears, we estimate a telephone access demand model based on UK household data. We use a pseudo-panel technique to account for the repeated cross- section nature of the data. Our results of small, but significant price elasticities with respect to connection charges, line rental, and household income are consistent with evidence from North America. Furthermore, we find a significant differential in the elasticity measured between high- and low-income groups.

Gastaldi, Francesca

PD July 1998. **TI** Towards a Two-Rate VAT in Italy: Distributional and Welfare Effects. **AU** Gastaldi, Francesca; Liberati, Paolo. **AA** University of Rome La Sapienza. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9816; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 20. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D63, H21, H23, H31. **KW** Tax Reforms. Microsimulation. Value-Added Tax. Indirect Taxes.

AB This paper assesses the redistributive effects of two recent adjustments of indirect taxes in Italy, in 1995 and in 1997, in view of the convergence to a two rate value-added tax (VAT) structure. Although reducing the number of tax rates from four to three in 1997, we find that the two adjustments did not cause significant distributional effects. The authors argue that a two-rate VAT could have replaced the 1997 adjustment providing the same revenue, redistributing the tax burden from less rich to richer households and significantly increasing welfare.

Gaube, Thomas

PD March 1999. **TI** When do Distortionary Taxes Reduce the Optimal Supply of Public Goods? **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/574R; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 29. **PR** no charge. **JE** H21, H41. **KW** Public Goods. Distortionary Taxation.

AB It is often argued that the optimal level of public good provision is below the first-best level as long as the government's expenditures have to be financed by distortionary taxes. I examine this hypothesis and show that it is correct in a representative consumer economy if (i) the public good is normal and (ii) private commodities are normal and gross substitutes. Otherwise, counter examples can be constructed. These results hold also with heterogeneous households provided that equity considerations are ignored. In general, however, distributional objectives may lead to a higher level of public expenditures in second best than the first best.

PD April 1999. **TI** Efficient Public Good Provision with Nonlinear Income Taxation. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/595; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 18. **PR** no charge. **JE** E62, H21, H24, H41, H50. **KW** Income Taxation. Public Goods. Government Expenditures. Self Selection.

AB Due to the use of distortionary taxation, real-world economies should attain a lower level of public expenditures than one might suspect from the analysis of artificial models where lump-sum taxes are assumed to be available. The paper examines this popular hypothesis by means of the two-type self-selection model of income taxation. I provide sufficient conditions for both a lower and a higher level of public expenditures in second best than in first best. Contrary to conventional intuition, these results do not in the first place depend on whether the (second- best) income tax is distortive, but whether public expenditures reduce the incentive of high-ability agents to imitate less productive individuals.

Gaumont, Damien

PD February 1999. **TI** Altruism and International Labour Migration. **AU** Gaumont, Damien; Mesnard, Alice. **AA** Gaumont: Universite Paris II and ERMES, CNRS. Mesnard: CREST. **SR** Document de Travail du CREST: 9905; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 13. **PR** no charge. **JE** D64, D91, E13, F22. **KW** International Migration. Altruism. Overlapping Generations. Steady- State Equilibrium.

AB This paper investigates the effect of altruism on the pattern of labor migration in a two-country overlapping generations model. We show that differences in degrees of altruism across countries lead to bilateral migration flows. Starting from the autarkic steady-state equilibrium, restrictions on labor migration are relaxed. In temporary post-migration equilibrium factor prices are equal across countries. We then characterize the unique stable steady-state equilibrium: both countries are populated and this equilibrium is not a Pareto improvement. Some individuals prefer to live in autarky, others in an integrated world economy.

Gelos, R. Gaston

PD April 1999. **TI** Fixed Capital Adjustment: Is Latin America Different? Evidence from the Colombian and Mexican Manufacturing Sectors. **AU** Gelos, R. Gaston; Isgut, Alberto. **AA** Gelos: International Monetary Fund. Isgut: Wesleyan University. **SR** International Monetary Fund Working Paper: 99/59; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 30. **PR** not available. **JE** E22, O12, O16. **KW** Investment. Lumpiness. Irreversibilities. Nonconvexities. Manufacturing.

AB This paper examines capital adjustment patterns using two large and largely novel data sets from the manufacturing sectors of Colombia and Mexico. The findings show that investment patterns in these countries resemble those reported for the United States to a surprising extent. Capital adjustments beyond maintenance investment occur only rarely, but large spikes account for a significant fraction of total investment. Although duration models do not provide strong evidence for the presence of substantial fixed costs, nonparametric adjustment function estimates reveal the presence of irreversibilities in investment. These irreversibilities are important for understanding aggregate investment behavior.

Geoghegan, Jacqueline

TI A Strong Test of the Von Liebig Hypothesis. **AU** Berck, Peter; Geoghegan, Jacqueline; Stohs, Stephen.

Ghose, Sudip

TI Lottery Designs to Discriminate between Shackle's Theory, Expected Utility Theory and Non-Expected Utility Theories. **AU** Ford, J. L.; Ghose, Sudip.

Ghosh, Atish R.

TI East Asia in the Aftermath: Was There a Crunch? **AU** Ghosh, Swati R.; Ghosh, Atish R.

Ghosh, Swati R.

PD March 1999. **TI** East Asia in the Aftermath: Was There a Crunch? **AU** Ghosh, Swati R.; Ghosh, Atish R. **AA** World Bank. **SR** International Monetary Fund Working Paper:99/38; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 19. **PR** not available. **JE** E44, F32, G21, G28. **KW** Credit Crunch. East Asia. Currency Crises. Interest Rates. Quantity Rationing.

AB This paper uses a disequilibrium framework to investigate a possible credit crunch in the East Asian crisis countries (Indonesia, Korea, and Thailand) during 1997-98. It defines a credit crunch as a situation in which interest rates do not equilibrate supply and demand for a credit and the aggregate amount is supply constrained, i.e. there is quantity rationing. In all three countries, rising real interest rates and weakening economic activity lowered credit demand and (with the exception of Indonesia in late 1997) there is little evidence of quantity rationing at the aggregate level -- although individual firms may have lost access to credit.

Ghura, Dhaneshwar

TI Adjustment and Growth in Sub-Saharan Africa. **AU** Calamitsis, Evangelos A.; Basu, Anupam; Ghura, Dhaneshwar.

Ghysels, Eric

PD October 1998. **TI** Causality between Returns and Traded Volumes. **AU** Ghysels, Eric; Gourieroux, Christian; Jasiak, Joanna. **AA** Ghysels: Pennsylvania State University and CIRANO. Gourieroux: CREST and CEPREMAP. Jasiak: York University. **SR** Document de Travail du CREST: 9840; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 40. **PR** no charge. **JE** C22, C32, G12. **KW** High Frequency Data. Price-Volume Relationship. Causality. Heterogeneity of Traders.

AB This paper examines causality between the series of returns and transactions volumes in high frequency data. The dynamics of both series is restricted to transitions between a finite number of states. Depending on the state selection criteria, this approach approximates the dynamics of varying market regimes, or in a broader sense reflects the time-varying heterogeneity of traders' behavior. This analysis is based on returns and volumes represented by Markov chains with constant or time-varying transition probabilities. The paper derives methods for estimating the transition probabilities, the long run equilibrium probability, and the instantaneous speed of adjustments. The limiting transition probability approximates the average proportion of time spent by the processes in a given state whereas the adjustment speed reveals the frequency of stock market fluctuations between states. The univariate return series is examined to identify varying market regimes and determine the impact of state specification on temporal dependence. In the bivariate framework, co-movements between volumes and transaction prices are investigated, and Granger causality tests proposed. The trade size threshold yielding a dichotomous process featuring maximum volume- price causality is presented as a volume classification criterion. The methods are applied to the Alcatel stock data and implications of sampling frequency are discussed.

Gilchrist, Simon

PD June 1998. **TI** Putty-Clay and Investment: A Business Cycle Analysis. **AU** Gilchrist, Simon; Williams, John C. **AA** Gilchrist: Boston University and National Bureau of Economic Research. Williams: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the

Federal Reserve System, Finance and Economics Discussion Paper Series: 98/30; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 43. **PR** no charge. **JE** D24, E22, E32. **KW** Putty-Clay. Vintage Capital. Business Cycles. Irreversibility. Capacity Utilization.

AB This paper develops a dynamic stochastic general equilibrium model with putty-clay technology that incorporates embodied technology, investment irreversibility, and variable capacity utilization. Low short-run capital-labor substitutability native to the putty-clay framework induces the putty-clay effect of a tight link between changes in capacity and movements in employment and output. As a result, persistent shocks to technology or factor prices generate business cycle dynamics absent in standard neoclassical models, including a prolonged hump-shaped response of hours, persistence in output growth, and positive comovement in the forecastable components of output and hours. Capacity constraints result in a nonlinear aggregate production function that implies asymmetric responses to large shocks with recessions steeper and deeper than expansions. Minimum distance estimation of a two-sector model that nests putty-clay and neoclassical production technologies supports a significant role for putty-clay capital in explaining business-cycle and medium-run dynamics.

TI Investment, Capacity, and Output: A Putty-Clay Approach. **AU** Williams, John C.; Gilchrist, Simon.

Gilles, Christian

TI Consumption and Asset Prices with Recursive Preferences. **AU** Fisher, Mark; Gilles, Christian.

Giot, Pierre

TI Asymmetric ACD Models: Introducing Price Information in ACD Models with a Two State Transition Model. **AU** Bauwens, Luc; Giot, Pierre.

Giovannetti, Giorgia

PD November 1998. **TI** An EMU with Different Transmission Mechanisms. **AU** Giovannetti, Giorgia; Marimon, Ramon. **AA** European University Institute. **SR** Centre for Economic Policy Research Discussion Paper: 2016; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. **PG** 48. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E44, E52, E58, F33, F42. **KW** Transmission Mechanisms. Central Banks. European Union. Monetary Policy. Limited Participation.

AB We develop and compute a dynamic equilibrium model where economies differ on the relative efficiency of financial intermediaries and, therefore, on households' portfolios and currency holdings. Our model economies have some of the features of the different financial structures in countries of the European Union and respond to monetary shocks in a way similar to the observed responses, which we also estimate. It follows that if differences on the relative efficiency of financial intermediaries persist in a monetary union, conflicts of interests in the pursuit of a common monetary policy can arise.

Girko, Vyacheslav L.

TI Minimax Estimator for Linear Models with Nonrandom Disturbances. **AU** Christopeit, Norbert; Girko, Vyacheslav L.

Glyn, Andrew

PD June 1998. **TI** Employment Growth, Structural Change and Capital Accumulation. **AA** University of Oxford. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 97; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 15. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** J21, O11, N30, N50, N60. **KW** Employment Growth. Capital Accumulation. Structural Change. Labor Supply. Labor Markets.

AB This paper examines long-run trends in agricultural and industrial employment, the growth of the population of working age, migration and changes in male and female participation rates, for a sample of OECD countries. The paper focuses particularly on how capital accumulation has shaped these processes, and analyzes how employment in industry and services, and for men and women, has reacted differently to capital accumulation and labor supply expansion. This enables assessment of how structural change has affected the relative employment performance of Europe and the USA.

Gnedenko, Ekaterina

TI Avoiding Health Risks from Drinking Water: Theory and Moscow Survey Results. **AU** Larson, Bruce A.; Gnedenko, Ekaterina.

Golan, Amos

PD July 1998. **TI** Estimating Coke and Pepsi's Price and Advertising Strategies. **AU** Golan, Amos; Karp, Larry S.; Perloff, Jeffrey M. **AA** Golan: American University. Karp and Perloff: University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 789R; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 52. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C13, C72, L13, L66, M37. **KW** Strategies. Noncooperative Games. Oligopoly. Maximum Entropy. Beverages.

AB A semi-parametric, information-based estimator is used to estimate strategies in prices and advertising for Coca-Cola and Pepsi-Cola. Separate strategies for each firm are estimated with and without restrictions from game theory. These information/entropy estimators are consistent, are efficient, and do not require distributional assumptions. These estimates are used to test theories about the strategies of firms and to see how changes in incomes or factor prices affect these strategies.

PD December 1998. **TI** An Information Based Sample-Selection Estimation Model of Agricultural Workers' Choice Between Piece-Rate and Hourly Work. **AU** Golan, Amos; Moretti, Enrico; Perloff, Jeffrey M. **AA** Golan: American University. Moretti and Perloff: University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 861; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 18. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C40, C51, J31, J41, J43. **KW** Maximum Entropy. Information.

Agricultural Labor. Piece Rates. Wage Differentials.
AB This paper presents a new generalized maximum entropy (GME) approach to estimation of sample-selection models with small data sets, such as are found in many empirical agricultural economic analyses. For small samples, the GME approach produces more stable estimates and has smaller mean square error measures than other well-known estimators such as ordinary least squares, Heckman's two-step method, full-information maximum likelihood, and Ahn and Powell's method. The technique is used to analyze whether hired agricultural workers will work in piece-rate or time-rate jobs and to compare female-male wage differentials for both types of jobs.

Goldberg, Lawrence G.

TI Cookie-Cutter versus Character: The Micro Structure of Small Business Lending by Large and Small Banks. **AU** Cole, Rebel A.; Goldberg, Lawrence G.; White, Lawrence J.

Goldberg, Pinelopi Koujianou

PD December 1998. **TI** The Evolution of Price Dispersion in the European Car Market. **AU** Goldberg, Pinelopi Koujianou; Verboven, Frank. **AA** Goldberg: Priceton University. Verboven: University of Antwerp. **SR** Centre for Economic Policy Research Discussion Paper: 2029; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 68. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D43, F12, F15, L13, L62. **KW** Price Dispersion. European Car Market. Oligopoly. Automobiles. Exchange Rates.
AB Car prices in Europe are characterized by large and persistent differences across countries. This paper documents and explains this price dispersion. Using a panel data set extending from 1980 to 1993, two main facts concerning car prices in Europe are demonstrated: (1) the existence of significant differences in quality adjusted prices across countries, with Italy and the United Kingdom systematically representing the most expensive markets; (2) substantial year-to-year volatility that is, to a large extent, accounted for by exchange rate fluctuations and the incomplete response of local currency prices to these fluctuations. These facts are analyzed within the framework of a multi-product oligopoly model with product differentiation. The model identifies three potential sources for the international price differences: price elasticities generating differences in mark-ups; costs; and import quota constraints. Based on the results the authors conjecture that EMU will substantially reduce the year-to-year volatility observed in the car price data.

Goldfajn, Ilan

PD March 1999. **TI** Does Monetary Policy Stabilize the Exchange Rate Following a Currency Crisis? **AU** Goldfajn, Ilan; Gupta, Poonam. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/42; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 15. **PR** not available. **JE** E31, E44, E52, E63, F31. **KW** Monetary Policy. Interest Rates. Inflation. Exchange Rates. Currency Crises.
AB This paper provides evidence on the relationship between monetary policy and the exchange rate in the aftermath of currency crises. It analyzes a large data set of currency crises in 80 countries for the period 1980-98. The main question addressed is: Can monetary policy increase the probability of reversing a post crisis undervaluation through nominal appreciation rather than higher inflation? We find that tight monetary policy facilitates the reversal of currency undervaluation through nominal appreciation. When the economy also faces a banking crisis, the results are not robust: depending on the specification, tight monetary policies may not have the same effect.

Gong, Frank F.

TI What was the Market's View of UK Monetary Policy? Estimating Inflation Risk and Expected Inflation with Indexed Bonds. **AU** Wickens, Michael R.; Remolona, Eli M.; Gong, Frank F.

Goodhart, Charles A. E.

PD March 1999. **TI** A Model of the Lender of Last Resort. **AU** Goodhart, Charles A. E.; Huang, Haizhou. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/39; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 27. **PR** not available. **JE** E58, G21, G28. **KW** Banking Crises. Financial Contagion. Moral Hazard. Last Resort Lender. Central Banks.
AB This paper develops a model of the lender of last resort. It provides an analytical basis for "too big too fail" and a rationale for "constructive ambiguity". Key results are that if contagion (moral hazard) is the main concern, the Central Bank (CB) will have an excessive (little) incentive to rescue banks and the resulting equilibrium risk level is high (low). When both contagion and moral hazard are jointly analyzed, the CB's incentives to rescue are only slightly weaker than with contagion alone. The CB's optimal policy may be non-monotonic in bank size.

Goodhue, Rachel E.

TI A Dynamic Model of the Food Processing Sector in the New Market Economies of Central Europe. **AU** Lyons, Robert; Goodhue, Rachel E.; Rausser, Gordon C.; Simon, Leo K.

PD September 1998. **TI** Performance Pay and Producer Incentives: Analyzing Broiler Chicken Production Contracts. **AU** Goodhue, Rachel E.; Rausser, Gordon C.; Simon, Leo K. **AA** Goodhue: University of California, Davis. Rausser and Simon: University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 858; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 28. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C53, D82, L14, Q11, Q12. **KW** Contract Farming. Broilers. Chickens. Producer Incentives. Asymmetric Information.
AB Modern contract theory is premised on the assumption that a principal has insufficient prior information to distinguish between high ability and low ability agents. The theory predicts that by offering agents an appropriate menu of contracts, the principal can mitigate the effect of this information asymmetry, and will maximize profits subject to information constraints by differentially assigning inputs to agents with different abilities. This paper tests this prediction in the context of broiler

production. Over 90% of broilers are produced under contracts in which processors will utilize higher ability growers more intensively, and will provide them with fewer chicks for producing a given amount of total output. While the first prediction would emerge in a standard production model without hidden information, the second prediction is a direct consequence of the information rents obtained by high ability growers with hidden information. The results provide strong but qualified support for this hypothesis.

Gordon, Robert J.

PD February 1999. **TI** The Aftermath of the 1992 ERM Break-up: Was There a Macroeconomic Free Lunch? **AA** Northwestern University. **SR** Centre for Economic Policy Research Discussion Paper: 2073; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 80. **PR** 5 dollars or 8 dollars or 8 euros. **JE** E24, E31, F31, F32, F43. **KW** Exchange Rates. Economic Performance. Growth. Inflation. Unemployment.

AB This paper examines the macroeconomic aftermath of the 1992 breakdown of the European Exchange Rate Mechanism (ERM). The economic performance of six "leaver" nations is compared with five "stayer" nations that maintained a roughly fixed parity with the Deutsche Mark. The results in this paper show that while the leaver nations experienced an acceleration of nominal GDP growth relative to the stayers, fully 80 percent of this spilled over into extra inflation. Virtually 100 percent of the nominal exchange rate depreciation passed through into higher import prices, and extra inflation would have been even more pronounced if it were not for quiescent wage rates, which the paper attributes to high unemployment. The absence of any significant stimulus to real output growth is attributed to fiscal tightening under pressure from the Maastricht criteria, which offset nearly all of the stimulus coming from the improved current account of the leaver nations.

Gordy, Michael B.

PD April 1998. **TI** A Generalization of Generalized Beta Distributions. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/18; 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** C10, D91, G11. **KW** Beta Distribution. Gauss Hypergeometric. Confluent Hypergeometric. Generalized Beta. Asset Pricing.

AB This paper introduces the "compound confluent hypergeometric" (CCH) distribution. The CCH unifies and generalizes three recently introduced generalizations of the beta distribution: the Gauss hypergeometric (GH) distribution of Armero and Bayarri (1994), the generalized beta (GB) distribution of McDonald and Xu (1995), and the confluent hypergeometric (CH) distribution of Gordy (forthcoming). In addition to greater flexibility in fitting data, the CCH offers two useful properties. Unlike the beta, GB and GH, the CCH allows for conditioning on explanatory variables in a natural and convenient way. The CCH family is conjugate for gamma distributed signals, and so may also prove useful in Bayesian analysis. Application of the CCH is demonstrated with two measures of household liquid assets. In each case, the CCH yields a statistically significant improvement in fit over the more restrictive alternatives.

PD December 1998. **TI** A Comparative Anatomy of Credit Risk Models. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/47; 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** C15, G11, G31. **KW** Credit Risk Models. Simulation Methods. Portfolio Choice. Corporate Finance.

AB Within the past two years, important advances have been made in modeling credit risk at the portfolio level. Practitioners and policy makers have invested in implementing and exploring a variety of new models individually. Less progress has been made, however, with comparative analyses. Direct comparison often is not straightforward, because the different models may be presented within rather different mathematical frameworks. This paper offers a comparative anatomy of two especially influential benchmarks for credit risk models, J. P. Morgan's CreditMetrics and Credit Suisse Financial Product's CreditRisk+. We show that, despite differences on the surface, the underlying mathematical structures are similar. The structural parallels provide intuition for the relationship between the two models and allow us to describe quite precisely where the models differ in functional form, distributional assumptions, and reliance on approximation formulae. We then design simulation exercises which evaluate the effect of each of these differences individually.

Gossner, Olivier

PD June 1998. **TI** Repeated Games Played by Cryptographically Sophisticated Players. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9835; 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** C72. **KW** Repeated Games. Bounded Rationality. Correlation. Turing Machines. Cryptography.

AB We explore the consequences of the assumptions used in modern cryptography when applied to repeated games with public communication. Technically speaking, we model agents by polynomial Turing machines and assume the existence of a trapdoor function. Under these conditions, we prove a Folk Theorem in which the minmax level of players has to be taken in correlated strategies instead of mixed strategies.

PD October 1998. **TI** Repeated Communication Through the Mechanism "AND". **AU** Gossner, Olivier; Vieille, Nicolas. **AA** Gossner: Universite Catholique de Louvain. Vieille: Universite Paris IX. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9856; 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** C70, C80, D83. **KW** Game Theory. Computer Science. Communication. Information. Babbling.

AB We consider the "and" communication mechanism that inputs messages from two players and outputs the public signal "yes" if both messages are "yes", and outputs "no" otherwise. We prove that no correlation can securely be implemented through finite or infinite repetition of this mechanism.

Gourieroux, Christian

TI The Informational Content of Household Decisions. **AU** Dionne, Georges; Gourieroux, Christian; Vanasse, C.

TI Dynamiques Tronquees et Estimation de Modeles de Diffusion. **AU** Darolles, Serge; Gourieroux, Christian.

PD January 1997. **TI** The Portfolio Composition of Households: A Scoring Analysis from French Data. **AU** Gourieroux, Christian; Tiomo, Anohe; Trognon, Alain. **AA** Gourieroux: CREST and CEPREMAP. Tiomo: CREST and Universite de Paris. Trognon: ENSAE. **SR** Document de Travail du CREST: 9706; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 57. **PR** no charge. **JE** C25, G11. **KW** Portfolio Composition. Logit Model. Scoring. Factor Analysis.
AB This paper focuses on the effects of individual characteristics such as income, wealth and a set of socioeconomic and demographic variables on the portfolio composition of households, using detailed micro data on 9,530 French households. We are especially interested in three features of the portfolio choice, i.e. the level of diversification, defined as the number of different types of financial assets which are held, the modeling for the probability of owning particular combinations of assets, and for the asset demand conditional upon ownership. We develop a general to specific approach to determine a reduced set of scoring functions sufficient to predict these different choices at the individual level.

TI Causality between Returns and Traded Volumes. **AU** Ghysels, Eric; Gourieroux, Christian; Jasiak, Joanna.

PD October 1998. **TI** Nonlinear Autocorrelograms: An Application to Intra-Trade Durations. **AU** Gourieroux, Christian; Jasiak, Joanna. **AA** Gourieroux: CREST and CEPREMAP. Jasiak: York University. **SR** Document de Travail du CREST: 9841; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 40. **PR** no charge. **JE** C14, C22, G10. **KW** High-Frequency Data. Intra-Trade Durations. Canonical Correlation. Persistence.
AB The paper presents a study of dependencies between the autocorrelation function and selected nonlinear transformations of time series. We examine parametric transformations and introduce an analysis of nonlinear canonical correlations. We also propose various methods of testing the autocorrelation function for normality of the serially correlated process represented by that autocorrelation function. The approach is applied to the series of durations between trades of the Alcatel stock of the Paris Bourse.

PD February 1999. **TI** Dynamic Factor Models. **AU** Gourieroux, Christian; Jasiak, Joanna. **AA** Gourieroux: CREST. Jasiak: York University. **SR** Document de Travail du CREST: 9908; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 43. **PR** no charge. **JE** C22, C32, D81, G12. **KW** Nonlinear Dynamics. Factor Models. Stochastic Volatility. Moral Hazard.
AB This paper introduces nonlinear dynamic factor models for various applications related to risk analysis. Traditional factor models represent the dynamics of processes driven by movements of latent variables, called factors. This paper introduces factors defined as random dynamic parameters and stochastic autocorrelated simulators. This class of factor models can represent processes with time varying conditional moments, like means and variances, and time varying distributional characteristics, like asymmetry and tail heaviness. Applications discussed in the paper include dynamic risk analysis, risk in price variations (models with stochastic mean and volatility), extreme risks (models with stochastic tails), risk in liquidity (stochastic volatility duration models), and moral hazard in insurance analysis. The proposed estimation procedures exploit the parameter partition encountered in many empirical examples, where distinct subsets of parameters determine the marginal density and the factor dynamics. The authors develop a two-stage Maximum Likelihood method, called the Finite Memory Maximum Likelihood, which is straightforward to implement in the presence of multiple factors. Alternative estimators rely on simulation techniques. They also examine the behavior of factor models in a neighborhood of the independence hypothesis or the unit root hypothesis and discuss the problems of prediction and filtering.

PD May 1999. **TI** Nonlinear Innovations and Impulse Responses. **AU** Gourieroux, Christian; Jasiak, Joanna. **AA** Gourieroux: CREST and CEPREMAP. Jasiak: York University. **SR** CEPREMAP Discussion Paper: 9906; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 37. **PR** between 25-35 francs. **JE** C22, C51. **KW** Nonlinear Dynamics. Gaussian Innovations. Impulse Response. Value at Risk.
AB This paper introduces a concept of innovation for the analysis of nonlinear dynamics. The authors show that nonlinear processes can be represented as functions of current and lagged values of such innovations. The residuals from nonlinear dynamic models are used to construct various specification tests. The authors define and study nonlinear impulse response functions in reaction to transitory and permanent shocks.

Goux, Dominique

TI Formation Continue et Carrieres Salariales: Une Evaluation sur Donnees Individuelles. **AU** Fougere, D.; Goux, Dominique; Maurin, Eric.

PD February 1999. **TI** Fixed-Term Contracts and the Dynamics of Labour Demand. **AU** Goux, Dominique; Maurin, Eric; Pauchet, Mariane. **AA** Goux and Maurin: CREST. Pauchet: Direction de la Prevision. **SR** Document de Travail du CREST: 9902; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 57. **PR** no charge. **JE** D21, J23, J30, M12. **KW** Fixed-Term Contracts. Indefinite-Term Contracts. Adjustments Costs. Labor Demand.
AB We estimate a model of labor demand that accounts for dynamics arising from the relative costs of hiring and firing workers on either indefinite-term contract (ITC) or fixed-term contract (FTC). We use a panel of 1,000 French firms, for which we can measure the number of entries and exits for each type of contract between 1988 and 1992. Our estimates suggest that (1) it is much more costly to layoff workers under ITC than to hire them; (2) it is much less costly to adjust the number of FTC than to adjust the number of ITC; (3) the asymmetry between hiring and layoff costs is more important for non-production than for production workers.

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Graafland, Johan J.

TI Tax Reform and the Dutch Labour Market: An Applied General Equilibrium Approach. **AU** Bovenberg, A. Lans; Graafland, Johan J.; de Mooij, Ruud A.

Grant, Charles

TI Changes in Consumption Behaviour: Italy in the Early 1990's. **AU** Weber, Guglielmo; Grant, Charles; Miniaci, Raffaele.

Gray, Mia

PD June 1998. **TI** Industrial Change and Regional Development: The Case of the US Biotechnology and Pharmaceutical Industries. **AU** Gray, Mia; Parker, Eric. **AA** Gray: University of Cambridge. Parker: Rutgers University. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 95; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 24. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** L10, L65, O31, R11, R32. **KW** Biotechnology. Innovation. Pharmaceuticals. Industrial Location. Mature Regions.

AB The paper contributes to the debate over the location and organization of innovative firms, industry renewal and regional rejuvenation, by examining the effect of technological breakthroughs in the US biotechnology industry on mature and emergent regions such as the North-East and California. Despite losing much of their pre-eminence in R&D, traditional pharmaceutical firms in the USA's mature regions have managed to "capture" much later-stage manufacturing and marketing. This reflects their competitive advantages over small new biotechnology firms in drug development experience, manufacturing capabilities, and marketing.

Grazzini, Lisa

TI Taxing Market Power. **AU** Gabszewicz, Jean J.; Grazzini, Lisa.

Green, Clifton T.

TI Market Risk and Model Risk for a Financial Institution Writing Options. **AU** Figlewski, Stephen; Green, Clifton T.

Gross, Dominique M.

PD April 1999. **TI** Exchange Rate Pass-Through and Dynamic Oligopoly: An Empirical Investigation. **AU** Gross, Dominique M.; Schmitt, Nicolas. **AA** Gross: International Monetary Fund. Schmitt: Simon Fraser University. **SR** International Monetary Fund Working Paper: 99/47; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 30. **PR** not available. **JE** F12, F14, F23, L13, L62. **KW** Exchange Rates. Pass Through. Oligopoly. International Trade. Automobiles.

AB This paper explicitly takes into account the dynamic oligopolistic rivalry among source producers to evaluate the degree of exchange rate pass-through. Using recent time-series techniques for the case of imported automobiles in Switzerland, the results show that prices are strategic complements and that the degree of pass-through is lower in the long run than in the short run. We attribute this to the fact that, although some rivals match long-term price changes, others do not, inducing the producer who faces a change in exchange rate to absorb a greater proportion of the variation.

Grossman, Gene M.

PD October 1998. **TI** Diversity and Trade. **AU** Grossman, Gene M.; Maggi, Giovanni. **AA** Princeton University. **SR** Centre for Economic Policy Research Discussion Paper: 2005; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 48. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D51, F11, I28, J24. **KW** Trade Patterns. Complementarities. Human Capital. Education Policy. International Trade.

AB We develop a competitive model of trade between countries with similar aggregate factor endowments. The trade pattern reflects differences in the distribution of talent across the labor forces of the two countries. The country with a relatively homogeneous population exports the good produced by a technology with complementarities between tasks. The country with a more diverse work force exports the good for which individual success is more important. Imperfect observability of talent strengthens the forces of comparative advantage. Finally, we examine an aspect of education policy concerning the spread of human capital across the student population.

Grubb, Farley

PD February 1998. **TI** The Statutory Regulation of Colonial Servitude: An Incomplete- Contract Approach. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 98/06; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 33. **PR** no charge. **JE** J41, K12, L14, N31. **KW** Incomplete Contracts. Servitude. Colonial America. End-of-Contract Payments.

AB Statutory laws in British Colonial America required that servants be given a particular set of goods upon contract completion. These laws were both innovative and unprecedented in their intrusion into the labor contracting process. Legally mandated end-of-contract payments have been interpreted as non-vested pensions whose purpose was to discourage servants from premature departure and as forced savings whose purpose was to prevent newly freed servants from taxing poor relief funds. Both these interpretations are inadequate. Incomplete contract theory provides a superior explanation. In this approach, the cost-minimizing combinations of laws, contract contingency clauses, and marker reputation effects are used to produce a good called "completed contracts." The analysis yields testable hypotheses regarding differences in end-of-contract length, by the presence of money wages, and between indentured, convict, and apprentice contracts. The evidence from these tests supports the incomplete-contract interpretation of colonial labor law.

PD June 1998. **TI** The Trans-Atlantic Market for British Convict Labor. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 98/09; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 19. **PR** no charge. **JE** J33, J41, J61, N31. **KW** Convict Labor. Colonial America. Indentured Servitude. Forced Emigration.

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AB Approximately 50,000 British convicts were sentenced to servitude and forcibly transported to America between 1718 and 1775. They represented a quarter of all British arrivals in this period. The economic determinants of this trade are not well understood, partly because the trade has not been modeled, and partly because the relevant evidence has been difficult to assemble. These two deficiencies are addressed here. A market model of the convict trade based on how the government modified the indentured servant market to accommodate convict transportees is developed. This model yields testable implications regarding the differences between the convict and servant trades in the distributional moments of colonial auction prices, the profits earned by shippers, and the process of labor selection. Quantitative data are assembled to test these implications. This evidence confirms the model's predictions and provides an estimate of the labor value of criminality. These results are then used to explain how economic forces shaped British penal policy and influenced the regulatory choices made by the government with respect to convict transportation.

PD August 1999. **TI** The Market Evaluation of Criminality: Evidence from the Auction of British Convict Labor in America, 1767-1775. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 99/06; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 9. **PR** no charge. **JE** D44, J31, K14, N31. **KW** Human Capital. Convict Labor. Auction Prices. Criminal Justice.

AB British convicts were sentenced to fixed-term labor contracts, transported to America, and auctioned to private employers. The auction prices are used in a fixed-effects human-capital model to estimate the market value of criminal conviction by type and severity of crime. The value of unusual human-capital attributes, namely height, health, and venereal disease, and of more conventional attributes, such as age, gender, and occupation, are also estimated. The results inform the debate on privatizing post-trial criminal justice.

Gruber, Harald

TI The Diffusion of Mobile Telecommunications Services in the European Union. **AU** Verboven, Frank; Gruber, Harald.

Guaitoli, Danilo

TI Moral Hazard and Non-Exclusive Contracts. **AU** Bisin, Alberto; Guaitoli, Danilo.

Guegan, Dominique

PD September 1998. **TI** The Multivariate Threshold Model: An Alternative to Detect Breaks and Hidden Cycles on Real Data. **AU** Guegan, Dominique.; Nguyen, Jean-Marc. **AA** Guegan: CREST, ENSAE, University of Reims. Nguyen: Institut Galilee. **SR** Document de Travail du CREST: 9839; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 21. **PR** no charge. **JE** C22, C53, C61, C62. **KW** Attractors. Deterministic System. Ergodicity. Non-Linear Models.

AB Nowadays, in the classic process of statistical modeling, people try to explain catastrophic phenomena such as crashes on the stock market by a statistical law with fat tails. This law has a tail behavior which is clearly different of the one of the Normal law. This permits modeling of the fact that great fluctuations are caused by great noises. However, the Normal law remains used in applications because of its easy utilization and its theoretical justification related to the Central Limit Theorem. So, is the hazard "benign" or "malignant"? (See Mandelbrot, 1962). In this article, the authors put forward another viewpoint which shows how a "small noise" (which may be Gaussian) can cause great fluctuations because of the unstable structure of the model skeleton (i.e. its deterministic part), but nevertheless one can undertake forecast methods in periods of stability.

TI Analyse d'Intervention et Previsions. Problematique et Application a des Donnees de la RATP. **AU** Ferrara, Laurent; Guegan, Dominique.

Guiso, Luigi

PD December 1998. **TI** What Determines Earnings and Employment Risk. **AU** Guiso, Luigi; Jappelli, Tullio; Pistaferri, Luigi. **AA** Guiso: Banca d'Italia. Jappelli: Universita di Salerno. Pistaferri: University College London. **SR** Centre for Economic Policy Research Discussion Paper: 2043; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D84, D91, E21, J64. **KW** Subjective Expectations. Income Risk. Unemployment. Future Income. Consumption.

AB Expectations and riskiness of future earnings are crucial determinants of individuals' intertemporal choices. Yet, the empirical literature lacks reliable measures of the distribution of future income. Lacking direct observability, the latter is usually estimated inferring the mean, the variance and other moments of the distribution from income realizations on panel data. In this paper we rely instead on subjective expectations available in the 1995 Survey of Household Income and Wealth, a large random sample representative of Italian households. The survey elicits information on the distribution of future earnings and the probability of employment in a very simple and parsimonious way. Based on the responses, we estimate the individual distributions of expected earnings conditional on working as well as unconditional. We can then relate various moments of these distributions to demographic and economic variables observable in the cross-section.

PD December 1998. **TI** Private Transfers, Borrowing Constraints and the Timing of Homeownership. **AU** Guiso, Luigi; Jappelli, Tullio. **AA** Guiso: Banca d'Italia. Jappelli: Universita di Salerno. **SR** Centre for Economic Policy Research Discussion Paper: 2050; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D91, E21, R21. **KW** Intergenerational Transfers. Homeownership. Borrowing Constraints. Saving. Housing.

AB The 1991 Italian Survey of Household Income and Wealth contains detailed information on how respondents acquired their main residence and any other real estate. This information is used to estimate the impact of inter vivos transfers on the saving period required to purchase a house and on the value of the house purchased when households have limited access to mortgage markets. It is found that transfers shorten the saving time by about two years and allow households to purchase considerably larger homes. The results have implications for the debate about the source of the relation

between aggregate saving and growth.

Gupta, Poonam

TI Does Monetary Policy Stabilize the Exchange Rate Following a Currency Crisis? **AU** Goldfajn, Ilan; Gupta, Poonam.

Gutterman, Alan S.

PD December 1997. **TI** Inter-Firm Cooperation, Competition Law and Patent Licensing: A US-EC Comparison. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 80; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 23. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D23, K21, L40, O31, O34. **KW** Competition Law. Property Rights. Patents. Inter-Firm Cooperation. Innovation.

AB There is a potential tension between competition law which aims, in general, to foster and preserve competition, and patent law, which aims to insulate the patent holder from competition in order to promote innovation. This paper compares recent US and EC approaches to resolving this tension in the area of patent licensing agreements. It is shown that there is a growing recognition on the part of competition authorities in both systems that inter-firm cooperation is an important aspect of innovation. However, EC practice in this respect has not been liberalized to the extent envisaged for the US by the Department of Justice's Intellectual Property Guidelines of 1995.

Haaland, Jan I.

PD February 1999. **TI** What Determines the Economic Geography of Europe? **AU** Haaland, Jan I.; Torstensson, Johan; Kind, Hans Jarle; Knarvik, Karen Helene Midelfart. **AA** Haaland, Kind and Knarvik: Norwegian School of Economics and Business Administration. Torstensson: Lund University. **SR** Centre for Economic Policy Research Discussion Paper: 2072; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 dollars or 8 dollars or 8 euros. **JE** C21, F14, F15, R12. **KW** Industrial Localization. Agglomeration. Comparative Advantage. Economic Geography. European Union.

AB This paper focuses on what the driving forces behind industry localization in Europe are. Based on traditional as well as new trade theory and new economic geography our cross-sectoral empirical analysis seeks to explain the pattern of relative and absolute concentration of manufacturing activity. By comparing impact over time, we also consider whether the single market has had an influence on factors determining localization. The results indicate that the most important determinant of economic geography in Europe by far is localization of demand. There is also evidence of cumulative causation in the sense that absolute concentration of production and expenditure mutually influence each other.

Habermeier, Karl F.

PD April 1999. **TI** Long-Run Exchange Rate Dynamics: A Real Data Study. **AU** Habermeier, Karl F.; Mesquita, Mario. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/50; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 22. **PR** not available. **JE** C23, F31. **KW** Exchange Rates. Panel Data. Purchasing Power Parity. Balassa- Samuelson Effect. Terms of Trade.

AB Long-run movements of real exchange rates are studied using a panel data set comprising 51 economies. The purchasing power parity hypothesis (PPP) is examined first using unit root tests. It is found that PPP does not hold for the full sample of countries, but it may hold for the advanced economies, as well as open and high-inflation economies. Using the recently developed mean group and pooled mean group estimators, the paper finds support for the Balassa-Samuelson hypothesis in both advanced and developing economies; and for the influence of shifts in the terms of trade.

Hafner, Christian M.

PD August 1998. **TI** Volatility Impulse Response Functions for Multivariate GARCH Models. **AU** Hafner, Christian M.; Herwartz, Helmut. **AA** Hafner: Humboldt-Universitat zu Berlin and Universite Catholique de Louvain. Herwartz: Humbolt-Universitat zu Berlin. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9847; 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** 11. **PR** $100 per year. **JE** C50, F31, G12. **KW** Multivariate GARCH. Impulse Response. Exchange Rates. Volatility.

AB In the empirical analysis of financial rate series, multivariate GARCH models have been used in various forms. In most cases it is not well understood how the use of a restricted model has to be paid for with the loss of valuable information. We investigate the structural implications of two alternative models for the response of the conditional (co-) variances to independent shocks. The impulse response analysis, adopted to volatility models, appears to be a convenient methodology to obtain information on the interaction of financial series. We define volatility impulse response functions and provide an empirical analysis for a bivariate exchange rate series. For the analyzed series, the impulse response function of the correlation reveals strong discrepancies between the estimated diagonal and BEKK models. This indicates that the diagonality restriction may hide important structural properties of the series.

Hahn, Jinyong

TI Real-Time Multivariate Density Forecast Evaluation and Calibration: Monitoring the Risk of High-Frequency Returns on Foreign Exchange. **AU** Diebold, Francis X.; Hahn, Jinyong; Tay, Anthony S.

Hakura, Dalia

PD April 1999. **TI** The Role of Inter- and Intraindustry Trade in Technology Diffusion. **AU** Hakura, Dalia; Jaumotte, Florence. **AA** Hakura: International Monetary Fund. Jaumotte: Harvard University. **SR** International Monetary Fund Working Paper: 99/58; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 15. **PR** not available. **JE** F14, F43, O30. **KW** Spillovers. Technology Transfer. International Trade. Intra-industry Trade. Inter-industry Trade.

AB Research shows that international trade is an important channel for the transfer of technology. Building on this

evidence, this paper examines the effects of inter- and intra-industry trade on technology transfer. The paper develops and tests the hypothesis that intra- industry trade stimulates more technology transfer than inter-industry trade because countries are likely to absorb foreign technologies more easily when imports are from the same sectors as their production and export sectors. The results of empirical tests for 87 countries during 1970-93 support this hypothesis.

Hauber, Brett A.

PD November 1998. **TI** The Effect of Nesting Structure Specification on Welfare Estimation in a Random Utility Model of Recreation Demand: An Application to the Demand for Recreation Fishing. **AU** Hauber, Brett A.; Parsons, George R. **AA** Hauber: Research Triangle Institute. Parsons: University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 98/11; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 24. **PR** no charge. **JE** C25, C51, D12, Q26. **KW** Recreation Demand. Random Utility. Nested Logit. Nesting Structure.

AB Nested logit (NL) has become a common method of estimating random utility models (RUM) of recreation demand. Because welfare analysis is often the motivation for estimating random utility models of recreation demand, it seems natural to ask, what effect does the choice of nesting structure have on the welfare estimates generated by these models? To address this question we compare the results of nine alternative nesting structures and find that the variation in welfare estimates across the models is not large. Kling and Thomson (1996), however, found that welfare estimates can vary widely across alternative nesting structures. The difference between our results and those of Kling and Thomson appears to originate with differences in the estimated scale parameters in the nested models.

Hauser, Shmuel

TI The Price of Options Illiquidity. **AU** Brenner, Menachem; Eldor, Rafi; Hauser, Shmuel.

Heinrich, Georges

PD December 1998. **TI** Ageing Gracefully? A Bootstrap Analysis of Poverty Among Pensioners Using Evidence from the PACO Databases. **AA** Heriot-Watt University. **SR** Centre for Economic Policy Research Discussion Paper: 2039; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** C12, C14, D31, H55, I32. **KW** Poverty. Public Pensions. Bootstrapping. Hungary. Income Distribution.

AB In 1998 Hungary embarked on a course of comprehensive pension reform. The reforms are likely to change the distribution of incomes of future generations. The purpose of this paper is two-fold. From a policy point of view, we analyze poverty and income inequality among pensioners in Hungary before the introduction of pension reforms. We find that the old system was expensive but that it provided effective -- albeit not efficient -- poverty relief. From a methodological point of view, we demonstrate the usefulness of bootstrapping techniques for statistical inference for poverty and inequality measures when sample survey data are used.

Helg, Rodolfo

TI Importing Jobs or Exporting Firms? A Close Look at the Labour Market Implications of Italy's Trade and Foreign Direct Investment Flows. **AU** Faini, Riccardo; Galeotti, Marzio; Falzoni, Anna M.; Helg, Rodolfo; Turrini, Alessandro.

TI Importing Jobs or Exporting Firms? A Close Look at the Labour Market Implications of Italy's Trade and Foreign Direct Investment Flows. **AU** Faini, Riccardo; Galeotti, Marzio; Falzoni, Anna M.; Helg, Rodolfo; Turrini, Alessandro.

Helpman, Elhanan

PD December 1998. **TI** The Structure of Foreign Trade. **AA** The Eitan Berglas School of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 2020; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 48. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F11, F12, F14, O14. **KW** Trade. Factor Content. Technology.

AB During the last two decades new research has greatly advanced our understanding of the structure of world trade. This article reviews the empirical literature that grew out of this effort. I emphasize the interplay between theory and empirical research that was an important driving force behind these developments. After reviewing early insights about the structure of foreign trade the discussion is in two parts. One part examines the links between factor endowments and trade flows. New research has produced important insights on the nature of these links, suggesting a central role for technological differences across countries. A second part examines determinants of the volume of trade, the share of intra-industry trade and evidence on economies of scale.

Henin, Pierre-Yves

TI Feedback Covariates Unit Root Tests: An Application to the Sustainability of Fiscal Policy. **AU** Feve, Patrick; Henin, Pierre-Yves; Jolivaldt, Philippe.

TI Assessing Effective Sustainability of Fiscal Policy Within the G-7. **AU** Feve, Patrick; Henin, Pierre-Yves.

Hennig-Schmidt, Heike

PD February 1997. **TI** Break-Offs in Bargaining. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/402; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 18. **PR** no charge. **JE** C71, C78, C79, C92. **KW** Bargaining Experiments. Video Experiments. Break Offs. Motivation. Reciprocity.

AB Breakoffs are a non-negligible phenomenon in bargaining. To answer the question of whether these findings can be explained within the game theoretic framework assuming individual rational players being guided only by economic motivations or whether one has to assume also noneconomic motivations, the authors analyzed the transcripts of a video taped bargaining experiment with groups as players where 20 percent of the sessions ended by breakoff. The evaluation of the breakoff discussions in all sessions show that subjects are guided by economic and noneconomic motivations: economic efficiency, power, and reciprocity. Based on these findings, the authors present a motivational explanation of potential and actual breakoffs.

Henriet, Dominique

TI Proliferation Under Threat of Entry: Pre-Emptive Investment or "Hopeful Monsters"? **AU** Baghdadli, Ilhem; Henriet, Dominique.

Herings, Jean-Jacques P.

PD June 1998. **TI** Pareto Improving Price Regulation when the Asset Market is Incomplete. **AU** Herings, Jean-Jacques P.; Polemarchakis, Heracles M. **AA** Herings: Tilburg University. Polemarchakis: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9841; 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** D45, D52, D60, L51. **KW** Incomplete Asset Market. Fix-Price Equilibria. Pareto Improvement. Price Regulation.

AB The asset market is incomplete. Fix-Price equilibria exist. Price regulation Pareto improves on a competitive allocation.

TI Continua of Underemployment Equilibria. **AU** Dreze, Jacques H.; Herings, Jean-Jacques P.

Herreiner, Dorothea K.

TI Fictitous Play in Coordination Games. **AU** Sela, Aner; Herreiner, Dorothea K.

Herrendorf, Berthold

PD January 1997. **TI** A Non-normative Theory of Inflation and Central Bank Independence. **AU** Herrendorf, Berthold; Neumann, Manfred J. M. **AA** Herrendorf: University of Warwick. Neumann: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/400; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 21. **PR** no charge. **JE** D70, E24, E31, E52, E58. **KW** Central Bank Independence. Inflation Bias. Insiders. Median Voter. Political Cycles.

AB We study monetary policy when the labor-market insiders set the wage so that the outsiders are involuntarily unemployed. If the insiders are in the majority, the representative insider will be the median voter. Consequently, neither an independent nor a government-dependent central banker is found to produce a systematic inflation bias, albeit equilibrium employment is too low from a social welfare point of view. The disadvantage of government-dependence is that the central bank takes the government's reelection prospects into account and creates a political cycle inflation. Our theory is consistent with the main stylized facts that a higher degree of central bank independence decreases average inflation and inflation variability, but does not affect output variability.

Herwartz, Helmut

TI Volatility Impulse Response Functions for Multivariate GARCH Models. **AU** Hafner, Christian M.; Herwartz, Helmut.

Hildenbrand, Werner

PD February 1999. **TI** On Behavioral Heterogeneity. **AU** Hildenbrand, Werner; Kneip, Alois. **AA** Hildenbrand: University of Bonn. Kneip: C.O.R.E. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/589; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 18. **PR** no charge. **JE** D11, E10, E21. **KW** Aggregation. Behavioral Heterogeneity. Mean Demand.

AB A notion of "behavioral heterogeneity" of a finite population of households is modeled. It is shown that the higher the degree of behavioral heterogeneity the less sensitive depends the aggregate consumption expenditure ratio upon prices. As a consequence, behavioral heterogeneity implies a tendency for the Jacobian of aggregate demand to have a negation dominant diagonal.

Ho Eom, Young

PD December 1997. **TI** Credit Risk and the Pricing of Japanese Yen Interest Rate Swaps. **AU** Ho Eom, Young; Subrahmanyam, Marti G.; Uno, Jun. **AA** Ho Eom: Federal Reserve Bank of New York. Subrahmanyam: New York University. Uno: QUICK Research Institute. **SR** New York University, Salomon Center Working Paper: S/98/35; 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** 24. **PR** $5.00 each; $100.00 yearly subscription. **JE** E43, G12, G13, G15. **KW** Credit Risk. Government Bonds. Swap Pricing. Interest Rate Swaps. Asset Pricing.

AB The fixed rate for interest rate swaps, or the swap rate, is closely related to the yield on a par default-free bond of the same maturity. This paper investigates the pricing of Japanese yen interest rate swaps during the period 1990-96. Using the Japanese Government Bonds (JGB's) issued by the Japanese Treasury as the basis for comparison, the authors obtain measures of the spreads of the swap rates over comparable JGB's, for different maturities. Other factors such as credit risk and liquidity effects play a role in explaining the spread between these two rates. The authors examine these effects by analyzing the relationship between swap spreads and proxies for these explanatory variables. The analysis indicates that it is possible to closely fit the term structure of default-free rates and swap rates using polynomial methods. The empirical results include that the swap spread in the yen market displays an inverted U-shape.

Hoekman, Bernard

TI Conditions of Competition and Multilateral Surveillance. **AU** Djankov, Simeon; Hoekman, Bernard.

Hoel, Michael

PD February 1998. **TI** Taxes Versus Quotas for a Stock Pollutant. **AU** Hoel, Michael; Karp, Larry S. **AA** Hoel: University of Oslo. Karp: University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 855; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 27. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** D82, H21, Q25, Q28. **KW** Pollution. Asymmetric Information. Taxation. Quotas. Stochastic Control.

AB We compare the effects of taxes and quotas for an environmental problem in which the regulator and polluter have asymmetric information about abatement costs, and the

environmental damage depends on the stock of pollution. We thus extend to a dynamic framework previous studies in which environmental damages depend on the flow of pollution. As with the static analysis, taxes are more likely to dominate quotas the greater is the curvature of the abatement cost function relative to the environmental damage function. However, in the dynamic model, an increase in the discount rate, the stock decay rate, or either the regulator's or the firms' ability to make adjustments, all increase the likelihood that taxes dominate quotas. An empirical illustration of these results suggests that taxes dominate quotas for the control of greenhouse gasses.

Hofbauer, Josef

PD March 1998. **TI** Sophisticated Imitation in Cyclic Games. **AU** Hofbauer, Josef; Schlag, Karl H. **AA** Hofbauer: University of Vienna. Schlag: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/427; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 18. **PR** no charge. **JE** C72, C78, D83. **KW** Cyclic Games. Bounded Rationality. Learning. Game Theory.

AB Consider a large population of individuals that are repeatedly randomly matched to play a cyclic 2 by 2 game such as Matching Pennies with fixed roles assigned in the game. Some learn by sampling previous play of a finite number of other individuals in the same role. We analyze population dynamics under optimal boundedly rational behavior (in the sense of Schlag, 1998c). We find that long run play is close to the Nash Equilibrium (when few individuals receive information) if and only if the sample size is greater than one.

Hoffman, Saul D.

PD October 1997. **TI** Could It Be True After All? AFDC Benefits and Non-Marital Births to Young Women. **AU** Hoffman, Saul D.; Foster, Michael E. **AA** Hoffman: University of Delaware. Foster: Georgia State University. **SR** University of Delaware, Department of Economics Working Paper: 97/09; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 27. **PR** no charge. **JE** C23, I38, J13. **KW** Non-Marital Fertility. AFDC Benefits. Welfare Programs. Birth Rates.

AB This paper extends research by Mark Rosenzweig (1995) on the effect of AFDC benefits on the non-marital fertility of young women. Unlike most previous work, Rosenzweig finds a statistically significant and quantitatively large positive effect. His model uses both state and cohort fixed effects to control for unmeasured factors that might bias AFDC estimates. This paper uses data from the Panel Study of Income Dynamics, which offers a smaller sample but better information on key independent variables and on fertility outcomes than the data used by Rosenzweig. In some of the simpler specifications, the coefficient estimates do yield a positive relationship between AFDC benefits and the probability of an early non-marital birth, but the pattern of estimated coefficients is not consistent with the underlying behavioral hypotheses. State fixed-effect models, estimated in two slightly differing specifications, yield diametrically opposite results. On the basis of the full set of findings, there is some possibility that AFDC benefits affect early non-marital childbearing, but one ought to be very cautious about accepting the strongest estimates. The paper also finds that family background, family income, family structure, mother's education, and race, are quantitatively important predictors of a non- marital birth.

Holtz-Eakin, Douglas

TI Where Does the Money Come From? The Financing of Small Entrepreneurial Enterprises. **AU** Fluck, Zsuzsanna; Holtz-Eakin, Douglas; Rosen, Harvey S.

Hsaio, Cheng

PD August 1997. **TI** Bayes Estimation of Short-Run Coefficients in Dynamic Panel Data Models. **AU** Hsaio, Cheng; Pesaran, M. Hashem; Tahmscioglu, A. Kamil. **AA** Hsaio: University of Southern California. Pesaran: University of Cambridge. Tahmscioglu: University of Wisconsin. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9804; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 26. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C11, C13, C15, C51. **KW** Short-Run Coefficients. Dynamic Panels. Bayes Estimator.

AB This study is concerned with estimating the mean of the coefficients in a dynamic panel data model when the coefficients are assumed to be randomly distributed across cross-sectional units. The authors suggest a Bayes approach to the estimation of such models using Markov chain Monte Carlo methods. They establish the asymptotic equivalence of the Bayes estimator and the mean group estimator proposed by Pesaran and Smith (1995), and show that the Bayes estimator is asymptotically normal for large N (the number of units) and large T (the number of time periods) so long as the square root of N divided by T approaches 0 as both N and T approach infinity. The performance of the Bayes estimator for the short-run coefficients in dynamic panels is also compared against alternative estimators using both simulated and real data. The Monte Carlo results show that the Bayes estimator has better sampling properties than other estimators for both small and moderate T samples. The analysis of Tobin's q model yields new results.

Huang, Haizhou

TI A Model of the Lender of Last Resort. **AU** Goodhart, Charles A. E.; Huang, Haizhou.

Huang, Jing-zhi

TI The Valuation of American Barrier Options Using the Decomposition Technique. **AU** Gao, Bin; Huang, Jing-zhi; Subrahmanyam, Marti G.

Huang, Qi

PD January 1999. **TI** Underpricing of New Equity Offerings by Privatized Firms: An International Test. **AU** Huang, Qi; Levich, Richard M. **AA** Huang: Hofstra University. Levich: New York University. **SR** New York University, Salomon Center Working Paper: S/99/05; 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** 33. **PR** $5.00 each; $100.00 yearly subscription. **JE** G12, G15, G24. **KW** Privatization. Underpricing. Initial Public Offerings. State-Owned Enterprises. Investment Banks.

AB This paper studies a large sample of 507 privatization offerings from 39 countries over the period 1979-1996. First, the authors document the extent of short-run underpricing of these privatization offerings and measure their variation across countries, industries, and years, as well as drawing comparisons to private company IPO's. Second, they test alternative explanations of the determinants of short-run underpricing drawing on various models of maximizing behavior by underwriters. Overall, they find support for elements of asymmetric information theory, investor sentiment theory and the reputation building hypothesis. Thus to a significant degree, the investment banking strategies believed to characterize IPO's of private companies in industrial countries may also play a role in the IPO strategies of state-owned enterprises in industrial and lesser developed economies. While other studies have presented evidence for a political explanation for the short-run underpricing effect, the authors' evidence is consistent with proceeds or value maximization.

Huck, Andreas

PD April 1997. TI Perfect Matchings in Balanced Hypergraph -- A Combinatorial Approach. AU Huck, Andreas; Triesch, Eberhard. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 97860; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. PG 5. PR no charge. JE C44, C60. KW Perfect Matching. Balanced Hypergraphs. Combinatorial Optimization. Perfect Matching. Graphs.

AB The paper's topic is an extension of the following classical result of Hall to hypergraphs: Each bipartite graph G contains a perfect matching if and only if for each independent set X of vertices, at least the absolute value of X vertices of G are adjacent to some vertex of X. Berge generalized the concept of bipartite graphs to hypergraphs. Based on Berge's concept, Conforti, Cornuejols, Kapoor, and Vuskovic extended Hall's result by proving that each balanced hypergraph G contains a perfect matching if and only if for any disjoint sets A and B of vertices with the absolute value of A greater than the absolute value of B, there is an edge in G containing more vertices in A than in B. Their proof is non-combinatorial and highly based on the theory of linear programming. In the present paper, the authors give an elementary combinatorial proof.

PD September 1997. TI Reducible Configurations for the Cycle-Double-Cover-Conjecture. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 97864; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. PG 17. PR no charge. JE C44. KW CDC-Conjecture. Reducibility. Small Circuits. Cycle Double Cover. Graphs.

AB A well-known CDC-conjecture states that each bridgeless graph contains a CDC. A strengthening is the 5-CDC-conjecture stating that each bridgeless graph contains a 5-CDC. In 1985, Goddyn proved that each minimal counterexample to the CDC-conjecture has girth at least 7 by showing that in certain graphs G, each circuit C of length less than 7 is reducible. This paper refines and schematizes Goddyn's methods so that they are able to prove reduction-properties by performing some verification-algorithms. By implementing these algorithms on a computer, the authors can show that each minimal counterexample to the CDC-conjecture has girth at least 12 and that each minimal counterexample to the 5-CDC-conjecture has girth at least 10. Moreover, by using a recent result of Robertson, Seymour, and Thomas, the authors can prove that each bridgeless cubic graph not containing the Petersen-graph as a minor has a 5-CDC which can be constructed in a polynomial time.

Hughes Hallett, Andrew J.

TI EMU and the External Value of the Euro. AU Demertzis, Maria; Hughes Hallett, Andrew J.

PD February 1999. TI EMU in Reality: The Effect of a Common Monetary Policy on Economies with Different Transmission Mechanisms. AU Hughes Hallett, Andrew J.; Piscitelli, Laura. AA University of Strathclyde. SR Centre for Economic Policy Research Discussion Paper: 2068; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 64. PR 5 dollars or 8 dollars or 8 euros. JE E32, E52, E61, F33, F42. KW Transmission Mechanisms. Policy Coordination. Monetary Policy. European Monetary Union. Asymmetric Shocks.

AB The theory of optimal currency areas states that a single currency zone should have symmetry of shocks and structures across regions. Research on monetary union in Europe has either assumed these conditions to hold close enough not to cause problems, or has focused on asymmetries in shocks. But what if economic structures and/or market responses differ between countries or regions? This paper examines the consequences of a single monetary policy when there are asymmetries in a) the monetary transmissions; b) the wage/price transmissions; and c) private sector asset holdings. We find the first and last destabilize the business cycle, and put countries out of phase with one another in a way that cannot be corrected by deficit constrained fiscal policies. The effect is to delay convergence.

Hughes, Alan

TI Innovation Surveys and Very Small Enterprises. AU Cosh, Andy; Hughes, Alan; Wood, Eric.

TI Longitudinal Aspects of Innovation Surveys: The CBR Experience. AU Cosh, Andy; Hughes, Alan; Wood, Eric.

Huizinga, Harry

PD February 1999. TI Should Monetary Policy be Adjusted Frequently? AU Huizinga, Harry; Eijffinger, Sylvester. AA CentER and Tilburg University. SR Centre for Economic Policy Research Discussion Paper: 2074; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 36. PR 5 dollars or 8 dollars or 8 euros. JE D78, E52, E58. KW Monetary Policy. Inflation. Central Banks. Credibility.

AB This paper considers the optimal frequency of central bank decision making. This frequency affects the central bank's flexibility to respond to economic shocks in a timely fashion, and also its credibility to maintain low inflation. Generally, the central bank resets monetary policy less often than the arrival of economic news. By adjusting monetary policy less frequently, the central bank achieves lower inflation at the cost of somewhat higher output variability. Evidence for several key countries (Australia, Germany, Japan, the United Kingdom and

the United States) shows that the frequency of actual monetary policy changes is indeed positively related to the inflation rate.

Hwang, Soosung

PD December 1997. **TI** Modelling Emerging Market Risk Premia using Higher Moments. **AU** Hwang, Soosung; Satchell, Stephen E. **AA** University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9806; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 19. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C13, D81, G11, G12. **KW** Skewness. Kurtosis. CAPM. Emerging Markets.

AB The purpose of this paper is to build an asset pricing model for emerging markets using higher moments. It is well-known that conventional CAPM models fail to explain the risk present in the data. Our contribution is to use an extended CAPM that explicitly involves measures of skewness and kurtosis to capture the risk premium. The four- moment CAPM may be appropriate when the third and fourth moments are substantial. For estimating and testing the higher-moment CAPMs in emerging markets, we use generalized method of moments (GMM), which is distribution free and thus the preferred method to use because of the difficulty of accurately modeling return distribution in emerging markets. However, we also present higher-moment market models as the data generating process of the individual emerging markets. They are consistent with higher-moment CAPMs, while reducing the multi- collinearity in the risk measures.

Ichino, Andrea

PD October 1998. **TI** Lower and Upper Bounds of Returns to Schooling: An Exercise in IV Estimation with Different Instruments. **AU** Ichino, Andrea; Winter-Ebmer, Rudolf. **AA** Ichino: European University Institute. Winter-Ebmer:University of Linz. **SR** Centre for Economic Policy Research Discussion Paper: 2007; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 20. **PR** 5 pounds or 8 dollars or 8 euros. **JE** C25, I21, J24, J31. **KW** Returns to Schooling. Wage Determination. Instrumental Variables. Education. Human Capital.

AB Several recent studies based on 'exogenous' sources of variation in education outcomes show Instrumental Variables (IV) estimates of returns to schooling that are substantially higher than the corresponding Ordinary Least Squares (OLS) estimates. Card (1995a) suggests that these results can be explained by the existence of heterogeneity in individual returns and by the fact that these studies are based on instruments that influence only the educational decision of individuals with high marginal returns due to either liquidity constraints or to high ability. This conclusion is consistent with the Local Average Treatment Effect (LATE) interpretation of IV (Imbens and Angrist, 1994), according to which IV identifies only the average returns of those who comply with the assignment-to-treatment mechanism implied by the instrument. The authors show evidence for Germany suggesting that returns to schooling are heterogeneous, instruments do matter and the LATE interpretation of IV makes sense.

Imbs, Jean

PD November 1998. **TI** Co-Fluctuations. **AA** New York University and University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9819; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 28. **PR** no charge. **JE** E32, F15, F30, F41. **KW** Business Cycles. Synchronization. Sectoral Shocks. International Economics. Economic Integration.

AB This paper studies the determinants of the international synchronization of business cycles. Surprisingly, countries that trade more do not appear to have more synchronized cycles once other factors are accounted for. On the other hand, the extent of co-fluctuations increases quite robustly with the income level, so that two rich countries are unconditionally more synchronized. The authors develop a model where this happens because the world moves from an unstable steady state with full international specialization to a stable symmetric one. Similar countries produce similar goods and as a result experience sectoral shocks that are of equal importance. By contrast, different income levels reflect differences in production patterns, where the North produces manufactures and the South agricultural goods. Since there is no particular reason why stochastic developments in those two sectors should be correlated with one another, less cyclical comovement between a rich and a poor country should be expected.

PD December 1998. **TI** Technology, Growth and the Business Cycle. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9821; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 14. **PR** no charge. **JE** E32, F41, F43, O47. **KW** Solow Residuals. Factor Hoarding. Business Cycles. Total Factor Productivity. Growth.

AB Using a partial equilibrium model that allows for hoarding, I construct series on input utilization rates for ten OECD countries. These series are used in growth accounting computations of total factor productivity which filter out cyclical variations in input utilization rates. The main findings are as follows: (i) adjusted Solow residuals grow consistently faster than standard measures, (ii) the variability of the adjusted Solow residual is in some cases smaller than the standard residual's, (iii) adjusted Solow residuals are less procyclical than standard residuals, and fare better at usual exogeneity tests, (iv) supply shocks are no more symmetric between European countries than elsewhere, (v) observed increased output symmetry in Europe is due to demand factors.

Irlenbusch, Bernd

TI The Moonlighting Game. **AU** Abbink, Klaus; Irlenbusch, Bernd; Renner, Elke.

TI Fairness as a Constraint on Trust in Reciprocity: An Experimental Observation. **AU** Fahr, Rene; Irlenbusch, Bernd.

Isgut, Alberto

TI Fixed Capital Adjustment: Is Latin America Different? Evidence from the Colombian and Mexican Manufacturing Sectors. **AU** Gelos, R. Gaston; Isgut, Alberto.

Iyer, Sridhar

PD August 1997. **TI** Forecasting with Multi-Regime Structural Time Series Models: An Application to Nominal Interest Rates. **AU** Iyer, Sridhar; Andrews, Rick L. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 97/07; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 12. **PR** no charge. **JE** C32, E43. **KW** Structural Time-Series. Interest Rates. Time-Varying Probabilities. Prior Probabilities.

AB In this paper we develop a multi-regime extension of a commonly used structural time series model and use the model as a basis for forecasting. Each regime has its own unique slope and variances to describe the process generating the data, and at any given time period the model predicts a priori which regime best characterizes the data. This is accomplished by using a multinomial logit model in which the primary explanatory variable is a measure of how consistent each regime has been with recent observations. The model is especially well-suited to forecasting series which are subject to frequent and/or major structural shocks. An application to nominal interest rates shows that the behavior of the three-month U.S. treasury bill rate is adequately explained by three regimes. The forecasting accuracy is superior to that produced by a traditional single-regime model.

Jadresic, Esteban

PD April 1999. **TI** Inflation Targeting and Output Stability. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/61; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 23. **PR** not available. **JE** E52, E63. **KW** Inflation Targeting. Output Stability. Monetary Policy. Staggered Price Setting. Stabilization.

AB This paper reexamines the effects of inflation targeting on output stability. It considers an economy with staggered price setting that is exposed to price shocks and where the policymaker cannot observe the current realizations of aggregate output and inflation. The paper shows that, if some price shocks can be anticipated, the effects of inflation targeting depend critically on the inflation indicator being targeted. Specifically, targeting headline inflation can severely destabilize output, while targeting inflation indicator of sticky prices may eliminate that problem and make the response of the output gap to aggregate shocks short-lived.

Jakus, Paul M.

TI A Comparison of Welfare Estimates from Four Models for Linking Seasonal Recreational Trips to Multinomial Logit Models of Site Choice. **AU** Parsons, George R.; Jakus, Paul M.; Tomasi, Ted.

Janda, Karel

PD May 1998. **TI** Food Import Demand in the Czech Republic. **AU** Janda, Karel; Rausser, Gordon C.; McCluskey, Jill. **AA** Janda: University of Iowa and El Prague, Czech Republic. Rausser: University of California, Berkeley. McCluskey: Washington State University. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 796; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 23. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** D12, E21, F14, P21, Q11. **KW** Czech Republic. Food Imports. AIDS. Transition Economies. International Trade.

AB This paper provides an overview of Czech food import demand in the transition period of the 90's. It also provides econometric estimates of own-and cross-price elasticities and group expenditure elasticities of Czech import demand for a number of foods. Based on the Hausman test for endogeneity, which supports the hypothesis that Czech import prices were exogenously determined outside of the Czech economy, we estimated five demand models as direct-demand systems of the AIDS type. The econometric estimation of elasticities was based on bimonthly data from March 1993 to August 1997.

Jappelli, Tullio

TI What Determines Earnings and Employment Risk. **AU** Guiso, Luigi; Jappelli, Tullio; Pistaferri, Luigi.

TI Private Transfers, Borrowing Constraints and the Timing of Homeownership. **AU** Guiso, Luigi; Jappelli, Tullio.

Jasiak, Joanna

TI Causality between Returns and Traded Volumes. **AU** Ghysels, Eric; Gourieroux, Christian; Jasiak, Joanna.

TI Nonlinear Autocorrelograms: An Application to Intra-Trade Durations. **AU** Gourieroux, Christian; Jasiak, Joanna.

TI Dynamic Factor Models. **AU** Gourieroux, Christian; Jasiak, Joanna.

TI Nonlinear Innovations and Impulse Responses. **AU** Gourieroux, Christian; Jasiak, Joanna.

Jaumotte, Florence

TI The Role of Inter- and Intraindustry Trade in Technology Diffusion. **AU** Hakura, Dalia; Jaumotte, Florence.

Jeanne, Olivier

TI Currency Crises, Sunspots and Markov-Switching Regimes. **AU** Masson, Paul R.; Jeanne, Olivier.

Jelen, Frank

PD August 1997. **TI** K-Independence and the K-Residue of a Graph. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 97861; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 9. **PR** no charge. **JE** C44, C60. **KW** K-Independence. Graph Residue. Graph Bounds. Independence Numbers.

AB Favaron et al. proved that the residue of a simple graph G is a lower bound on its independence number, alpha (G). A vertex set X in a graph is called k-independent if the subgraph induced by X has a maximum degree less than k. We prove that a generalization of the residue, the k-residue of a graph, yields a lower bound on the k-independence number. The new bound strengthens a bound of Caro and Tuza and improves all known bounds for some graphs.

PD August 1997. **TI** The Residue of a Graph in Comparison with Other Lower Bounds on the Independence

Number. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 97862; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 9. **PR** no charge. **JE** C44, C60. **KW** Graph Residue. Graph Bounds. Independence Numbers. Caro-Wei Bound.

AB Strengthening the well-known Caro-Wei bound, Favaron et al. proved that the residue of a simple graph G is a lower bound on its independence number, alpha (G). In this paper the residue is compared with other lower bounds found by Hansen and Lorea, Selkow and Murphy. We prove that the residue strengthens Selkow's bound and often improves the Hansen-Lorea bound. The comparison with Murphy's bound reveals new results on the quality of both bounds.

Jenkins, Glenn P.

PD April 1998. **TI** Evaluation of Stakeholder Impacts in Cost-Benefit Analysis. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 631; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 21. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D61, D62, H43, H50. **KW** Economic Welfare. Cost-Benefit Analysis. Stakeholders. Externalities. Investment Projects.

AB This paper expands the scope of the analyses of both public and private investment projects beyond the traditional criteria of the financial and economic net present value of an investment. It shows that if the economic and financial analyses are carried out using a common numeraire, the scope of the analysis can be expanded to include issues of stakeholder impacts, poverty impacts, and an assessment of the long term sustainability of the project. Instead of just providing summary statistics of the financial and economic net present values for the project, the authors are now able to assess the income impacts that the project will have on different interest groups in society. An important contribution of this analysis is that it forces the analyst to do a reconciliation between the economic performance, the financial performance and the distributional impacts of a project. The paper contains three examples of projects.

Jerison, David

PD May 1999. **TI** Measuring Consumer Inconsistency: Real Income, Revealed Preference and the Slutsky Matrix. **AU** Jerison, David; Jerison, Michael. **AA** Jerison D.: Massachusetts Institute of Technology. Jerison M.: SUNY. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/597; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 24. **PR** no charge. **JE** D11, E31. **KW** Revealed Preference. Consumer Demand. Slutsky Matrix. Demand Inconsistency. Consumer Price Index.

AB If a smooth consumer demand function violates the strong axiom of revealed preference, then income and prices can follow a cycle and return to their starting values even though real income has always risen. We show how real income growth along the "worst" revealed preference cycle depends on the range of price variation and on violations of the Slutsky conditions. We use this result to justify a new index of local demand inconsistency. We also relate the result to proposed reforms of the consumer price index, and we provide a bound on the number of observations required to form a revealed preference cycle.

Jerison, Michael

TI Measuring Consumer Inconsistency: Real Income, Revealed Preference and the Slutsky Matrix. **AU** Jerison, David; Jerison, Michael.

Jimeno, Juan Francisco

TI Labour Reallocation, Labour Flows and Labour Market Institutions: Evidence from Spain. **AU** Garcia Serrano, Carlos; Jimeno, Juan Francisco.

John, Kose

TI Contract Renegotiation and the Optimality of Resetting Executive Stock Options. **AU** Archarya, Viral V.; John, Kose; Sundaram, Rangarajan K.

John, Reinhard

PD May 1999. **TI** A Note on Minty Variational Inequalities and Generalized Monotonicity. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/596; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 10. **PR** no charge. **JE** C60. **KW** Variational Inequalities. Quasimonotonicity. Pseudomonotonicity. Generalized Monotonicity.

AB Some notions of generalized monotonicity for multi-valued mappings are characterized in terms of properties of the associated Minty variational inequalities. In particular, it is shown that the Minty variational inequality problem derived from a map F defined on a convex domain is solvable on any nonempty, compact, and convex subdomain if and only if F is properly quasimonotone.

Jolivaldt, Philippe

TI Feedback Covariates Unit Root Tests: An Application to the Sustainability of Fiscal Policy. **AU** Feve, Patrick; Henin, Pierre-Yves; Jolivaldt, Philippe.

Jondeau, Eric

PD October 1998. **TI** Reading the Smile: The Message Conveyed by Methods which Infer Risk Neutral Densities. **AU** Jondeau, Eric; Rockinger, Michael. **AA** Jondeau: Banque de France. Rockinger: HEC. **SR** Centre for Economic Policy Research Discussion Paper: 2009; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 48. **PR** 5 pounds or 8 dollars or 8 euros. **JE** C52, F31, F33, G14, G15. **KW** Risk Neutral Density. Exchange Rate Options. Elections. Foreign Exchange. International Finance.

AB This paper compares the quality and information content of risk neutral densities obtained by various methods. The authors consider a non-structural method, based on a mixture of log-normal densities, and the semi-nonparametric ones, based on an Hermite approximation of Abken, Madan, Milne, and Ramamurtie, or based on an Edgeworth expansion of Jarrow and Rudd. The authors also consider two structural approaches

namely Malz, who assumes a jump-diffusion for the underlying process, and Heston's stochastic volatility model. The authors apply those models on FF/DM OTC exchange rate options for various dates ranging between May 1996 and June 1997 -- covering the 1997 snap election. Models differ when important news hits the market. The non-structural model provides a good fit to options prices but is unable to provide as much information about market participants' expectations as Malz's jump-diffusion model. Methods based on polynomial expansions have difficulties describing the exchange rate data.

PD October 1998. **TI** Reading Interest Rate and Bond Futures Options' Smiles Around the 1997 French Snap Election. **AU** Jondeau, Eric; Rockinger, Michael; Coutant, Sophie. **AA** Jondeau and Coutant: Banque de France. Rockinger: HEC. **SR** Centre for Economic Policy Research Discussion Paper: 2010; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 56. **PR** 5 pounds or 8 dollars or 8 euros. **JE** C52, E43, E52, G13, G14. **KW** Risk Neutral Density. Futures Option Pricing. PIBOR. Notional. Political Risk.

AB This paper aims to compare various methods which extract a Risk Neutral Density (RND) out of PIBOR, as well as of Notional interest rate futures options, and to investigate how traders react to a political event. The authors first focus on five dates surrounding the 1997 snap election and several methods: Black (1976), a mixture of log-normals, a Hermite expansion, and a method based on Maximum Entropy. The various methods give similar RND's, yet, by allowing for somewhat dirty options prices, by providing a good fit to options prices, and by being fast, the Hermite expansion approach is the retained method for the data at hand. This approach also allows construction of options with a fixed time until maturity. A daily panel of options running from February 1997 to July 1997 reveals that operators in both markets anticipated the snap election a few days before the official announcement.

Jones, Geferri

TI UK FDI and the Comparative Advantage of the UK. **AU** Nachum, Lilach; Dunning, John; Jones, Geferri.

Jordan, Tibor

TI An Orientation Theorem with Parity Conditions. **AU** Frank, Andras; Jordan, Tibor; Szigeti, Zoltan.

Jouini, Elyes

PD 1997. **TI** Viability and Equilibrium in Securities Markets with Frictions. **AU** Jouini, Elyes; Kallal, Hedi. **AA** Jouini: CREST, CERMSEM, Universite Paris 1. Kallal: New York University. **SR** Document de Travail du CREST: 9707; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 21. **PR** no charge. **JE** C62, D11, G12, G13. **KW** Absence of Arbitrage. Market Frictions. Sublinear Pricing. Equilibrium Bounds.

AB This paper studies foundational issues in asset pricing theory, modeling market frictions by letting the set of marketed contingent claims and the pricing rule be convex. This is the reduced form of multiperiod securities price models incorporating a large class of market frictions. It is a viable model of economic equilibrium if there exist maximizing agents with preferences in a certain class that can find an optimal consumption bundle. This is equivalent to having a positive linear pricing rule on the entire space of contingent claims that lies below the convex pricing rule on the set of marketed claims. This is also equivalent to the absence of free lunches (arbitrage opportunities). When a market for a new contingent claim opens, a bid- ask price pair is consistent if it exists in some viable extended economy. The set of consistent prices is equal (up to its boundary) to the set of shadow prices. There exists a unique extended consistent sublinear pricing rule -- the supremum of the underlying frictionless linear prices -- for which the original equilibrium does not collapse when a new market opens, regardless of preferences and endowments. Finally, the paper establishes Ansel and Stricker (1994)'s result in a general framework.

PD January 1997. **TI** Price Functionals with Bid-Ask Spreads: An Axiomatic Approach. **AA** CREST-ENSAE, CERMEM-Universite de Paris 1 and Ecole Polytechnique. **SR** Document de Travail du CREST: 9705; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 20. **PR** no charge. **JE** G11, G12. **KW** Contingent Claims. Bid-Ask Spreads. Martingale Measures. Arbitrage.

AB In Jouini and Kallal (1995a), the authors derived valuation formulas for contingent claims with cash delivery in the presence of bid-ask spreads. Other authors such as Cvitanic and Karatzas (1996) obtained similar results for a more general definition of the contingent claims but assuming transaction costs and without bid-ask spreads in general. The main difference consists in the fact that the bid-ask ratio is constant is this last reference. This assumption does not allow for situations where the prices are determined by the buying and selling limit orders or by the competition between market-makers. This paper derives a valuation formula that generalizes all the previous results in a very general setting. Indeed, under some minimal assumptions on the price function, the authors prove that the prices of the contingent claim are necessarily within some minimal interval.

Juillard, Michel

TI The Contemporary Japanese Crisis and the Transformations of the Wage Labor Nexus. **AU** Boyer, Robert; Juillard, Michel.

Kahan, Marcel

TI An Institutional Innovation to Reduce the Agency Costs of Public Corporate Bonds. **AU** Amihud, Yakov; Garbade, Kenneth D.; Kahan, Marcel.

Kallal, Hedi

TI Viability and Equilibrium in Securities Markets with Frictions. **AU** Jouini, Elyes; Kallal, Hedi.

Karp, Larry S.

PD July 1997. **TI** Dynamics and Limited Cooperation in International Environmental Agreements. **AU** Karp, Larry S.; Sacheti, Sandeep. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 854; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 34. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** F12, F42, Q28.

KW Environmental Agreements. Environmental Stocks. Cooperation. Pollution. Free Riding.
AB The amount of cooperation needed to improve the welfare of signatories of International Environmental Agreements (IEA's), in the presence of market imperfections, depends on the characteristics of pollution. In a dynamic model, the conventional wisdom on the effect of free-riding needs to be modified for certain types of pollution problems. For local pollution problems, a sufficient level of free- riding actually promotes signatories' welfare. For global pollution problems, the conventional wisdom is correct insofar as free-riding makes it more difficult to form a successful IEA. However, for some global pollution problems, free-riding may disappear. A static model may overstate or understate the difficulty of forming a successful IEA. The effect of an IEA is sensitive to differences between the duration of the IEA and agents' planning horizon.

PD July 1997. **TI** A Neoclassical View of Trade Liberalization. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 856; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 37. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** F11, F13, F41, Q17. **KW** Neoclassical Models. Free Trade. Trade Liberalization. Agriculture.
AB This paper attempts to provide a balanced view of the neoclassical economists' perspective on trade liberalization, with an emphasis on the agricultural sector. I review the basic arguments in favor of competitive markets in general and free trade in particular. These arguments are based on restrictive assumptions which often fail to hold. Under more realistic assumptions, the arguments in favor of free trade are invalid. Economists remain skeptical of the benefits of trade restrictions, but this is a nuanced judgment, rather than a theoretical certainty. I describe a number of situations where market failures imply trade restrictions can improve efficiency.

TI Taxes Versus Quotas for a Stock Pollutant. **AU** Hoel, Michael; Karp, Larry S.

TI Estimating Coke and Pepsi's Price and Advertising Strategies. **AU** Golan, Amos; Karp, Larry S.; Perloff, Jeffrey M.

PD July 1998. **TI** Learning-by-Doing and the Choice of Technology: The Role of Patience. **AU** Karp, Larry S.; Lee, In Ho. **AA** Karp: University of California, Berkeley. Lee: University of Southampton. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 857; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 25. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** D92, O14, O33. **KW** Learning-By-Doing. Overtaking. Leapfrogging. Technology Adoption. Growth.
AB Jovanovic and Nyarko (1996) showed that when agents learn-by-doing and are myopic, less advanced agents may adopt new technologies while more advanced firms stick with the old technology since the new technology takes time to learn. In this case, the less advanced agents might eventually overtake (or "leapfrog") the advanced agents. We show that this kind of overtaking can also occur if agents are forward looking and have high discount rates. However, if agents are sufficiently patient, overtaking cannot occur. A lower discount rate increases the set of states in which agents adopt new technologies, so more patient agents tend to upgrade their technology more frequently.

Kataoka, Yukie

TI Yield Spreads and Short-Term Interest Rate Movements in the Tokyo Money Market and the Actions of the Bank of Japan: November 1993 to March 1996. **AU** Cadle, P. J.; Ford, J. L.; Kataoka, Yukie.

Kaufman, Martin

TI Nonrenewable Resources: A Case for Persistent Fiscal Surpluses. **AU** Alier, Max; Kaufman, Martin.

Keeble, David

PD March 1998. **TI** Collective Learning Processes and Inter-Firm Networking in Innovative High-Technology Regions. **AU** Keeble, David; Lawson, Clive; Lawton Smith, Helen; Moore, Barry; Wilkinson, S. Frank. **AA** Keeble, Lawson, Moore, and Wilkinson: University of Cambridge. Lawton Smith: University of Oxford. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 86; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 28. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** L11, L20, O18, O31, R32. **KW** High-Technology Industry. Collective Learning. Spin-Offs. Inter-Firm Networking. Innovation.
AB This study of 100 high-technology small and medium-sized enterprises in the Cambridge and Oxford regions investigates the nature and extent of regional collective learning processes and networking for technology development between local technology-based firms and other organizations, such as Cambridge and Oxford Universities, as theorized by e.g. Camagni and Lorenz. It reveals evidence of a number of the elements hypothesized as necessary for such processes of regional collective learning. This is especially true of the role of entrepreneur spin-off activity and professional and scientific labor recruitment, with resultant transfer of embodied expertise and continuing inter-firm links. The study also highlights the parallel importance in technology development of wider national and global networks.

PD June 1998. **TI** Local Industrial Development and Dynamics: The East Anglian Case. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 96; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 38. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** L11, O18, O30, R11, R58. **KW** East Anglia. Regional Development. Regional Planning. High-Technology Industry. SME's.
AB Since the 1960s, East Anglia's economy has grown faster than that of most other British regions, reflecting a transformation from an historic dependence on agriculture to one focused on manufacturing and services. The paper analyses the nature of and driving forces underpinning this recent industrial growth. It identifies growing and declining

sectors, evaluates the role of local entrepreneurs, small firms and inward investment, assesses the reasons for the rapid expansion of high- technology industry around Cambridge, and examines institutional and policy impacts on development.

Kelly, Roy

PD February 1998. **TI** Intergovernmental Revenue Allocation Theory and Practice: Application to Nepal. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 624; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 21. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** H71, H77, O18, O23, R51. **KW** Fiscal Federalism. Intergovernmental Relations. Tax Assignment. Nepal. Revenue Allocation.

AB Countries everywhere are embarking on reform efforts to improve government service delivery. In developing countries, however, intergovernmental fiscal analysis often focuses first on revenue allocation and revenue mobilization alternatives due to the extreme lack of local government revenue alternatives. This paper focuses specifically on those revenue components that are necessary for successful fiscal decentralization in these developing countries. Section one discusses the theory and practice of revenue allocation, summarizing a general typology for intergovernmental revenue allocation. Five different revenue allocation options are discussed: independent local taxation, centrally-assisted local taxation, surcharges, tax sharing and revenue sharing. Section two identifies five basic criteria for assigning revenue bases to levels of government and for designing individual revenue instruments: revenue, efficiency, equity, administrative feasibility and political acceptability. Section three applies these concepts to revenue allocation between levels of government in Nepal. This paper confirms the dominance of the central government in Nepal's public finance.

Kelm, Matthias

PD March 1998. **TI** Opportunism and the Advantage of Organisations. **AA** McKinsey and Co, Berlin, Germany. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 82; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 27. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** B25, D23, D80, L22, L23. **KW** Opportunism. Bounded Rationality. Institutions. Economic Organization.

AB This paper attempts to refute Oliver Williamson's argument that any theory of economic organization necessarily has to rely on the behavioral assumption of opportunism, because bounded rationality alone allegedly does not imply any advantage of authority compared to market contracting. First, it is shown that the behavioral implications of bounded rationality are sufficient to derive an inherent advantage of authority, and therefore internal organization, as a coordination mechanism. Second, it is explained why Williamson's argument to the contrary is logically flawed.

Kerstens, Kristiaan

PD June 1998. **TI** Distinguishing Technical and Scale Efficiency on Non-Convex and Convex Technologies: Theoretical Analysis and Empirical Illustrations. **AU** Kerstens, Kristiaan; Vanden Eeckaut, Philippe. **AA** Kerstens: Universite Catholique de Lille. Vanden Eeckaut: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9855; 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** D24. **KW** Technical Efficiency. Free Disposal Hull. Data Envelopment. Returns to Scale.

AB This paper defines a decomposition of technical efficiency for a series of nonparametric deterministic reference technologies related to the Free Disposal Hull. More specifically, introducing several returns to scale assumptions into this non-convex production model allows one to distinguish between technical and scale inefficiencies. These technologies and the resulting efficiency decomposition are illustrated with several data sets and contrasted with results based on the traditional, convex Data Envelopment Analysis models. In particular, data on UK rates departments are extensively analyzed. Furthermore, samples of French urban transit companies and of Belgian municipalities serve to verify certain empirical regularities.

Key, Nigel

PD June 1998. **TI** Social and Environmental Consequences of the Mexican Reforms: Common Pool Resources in the Ejido Sector. **AU** Key, Nigel; Munoz-Pina, Carlos; de Janvry, Alain; Sadoulet, Elisabeth. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 851; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 74. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** H40, O13, Q15, Q28, R52. **KW** Land Reform. Social Aspects. Environmental Aspects. Ejidos. Common Pool Resources.

AB The ejido sector is a fundamental component of Mexican agriculture and rural society. It covers about one-half of the Mexican territory. Ejido land consists of both individual plots and common access lands. The paper proceeds as follows. In section 2, the authors use a 1994 survey of 275 ejidos to characterize common property use in the ejido sector. Section 3 presents a discussion of the major issues of common property resource management, economic rationales for maintaining land in commons, and factors that affect the incentives for communities to divide their common land. Section 4 discusses the impact of recent changes in domestic programs on common property use and environmental management in the ejido. Section 5 presents an empirical estimation of the relationship between cooperation, rule-making, common property management, and the environment. Section 6 presents a description of the evolution of the use and legal status of the common property areas.

Khamis, May

PD April 1999. **TI** Can Currency Demand be Stable Under a Financial Crisis? The Case of Mexico. **AU** Khamis, May; Leone, Alfredo M. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/53;

International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 24. **PR** not available. **JE** C51, C52, E41, E44, E58. **KW** Mexico. Money Demand. Financial Crises. Stability. Monetary Policy.

AB The paper finds strong evidence that real currency demand in Mexico remained stable throughout and after the financial crisis in Mexico. Cointegration analysis using the Johansen-Juselius technique indicates a strong cointegration relationship between real currency balances, real private consumption expenditures, and the interest rate. The dynamic model for real currency demand exhibits significant parameter constancy even after the financial crisis as indicated by a number of statistical tests. The paper concludes that the significant reduction in real currency demand under the financial crisis in Mexico could be appropriately explained by the change in the variables that historically explained the demand for real cash balances in Mexico. This result supports the Bank of Mexico's use of a reserve money program to implement monetary policy under the financial crisis.

Kikidis, Nicholas

TI Inflation, Welfare and Public Goods. **AU** Bloise, Gaetano; Currarini, Sergio; Kikidis, Nicholas.

Kiley, Michael T.

PD May 1998. **TI** Monetary Policy Under Neoclassical and New-Keynesian Phillips Curves, with an Application to Price Level and Inflation Targeting. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/27; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 17. **PR** no charge. **JE** E31, E52, E58. **KW** Monetary Policy. Phillips Curves. Price Level. Time Inconsistency. Base Drift.

AB This paper compares discretionary monetary policy under two Phillips curves. Previous work uses a Phillips curve consistent with "Neoclassical" models of price adjustment. Sticky price models imply a "New-Keynesian" Phillips curve based on staggered price setting that delivers familiar results on an inflationary bias and inflation contracts. However, the comparison of price level and inflation targeting reveals an output/price stability tradeoff under the New- Keynesian model that does not arise under the Neoclassical specification, illustrating the usefulness of considering the New- Keynesian model. Given the empirical support for the New-Keynesian specification, a stability tradeoff likely exists.

PD January 1999. **TI** Partial Adjustment and Staggered Price Setting. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/01; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 23. **PR** no charge. **JE** E10, E31, E32, E52. **KW** Price Rigidity. Calvo Model. Taylor Model. Sticky Prices. Monetary Policy.

AB This paper compares staggered price setting to partial adjustment of prices in a small optimizing IS/LM model. In contrast to the overwhelming perception in the literature, the models are not similar for most parameterizations. These results clarify some confusion in recent work regarding the persistence of output responses to monetary shocks, reveal important quantitative differences between the stabilizing properties of different monetary policies across sticky price specifications, and highlight the role for more research on new- Keynesian "real rigidities" in DGE models.

Kilian, Lutz

TI On the Finite Sample Accuracy of Nonparametric Resampling Algorithms for Economic Time Series. **AU** Berkowitz, Jeremy; Birgean, Ionel; Kilian, Lutz.

Kim, Jinill

PD March 1998. **TI** Indeterminacy and Investment Adjustment Costs. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/38; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 11. **PR** no charge. **JE** E22, E32, O41. **KW** Indeterminacy. Investment. Adjustment Costs. Two-Sector Models. Increasing Returns.

AB It has been widely known that a neoclassical growth model with sufficient increasing returns in production may feature an indeterminate steady state. This note shows how investment adjustment costs increase the required degree of increasing returns for indeterminacy to arise. We also argue that sector-specific externalities are observationally equivalent to negative adjustment costs.

PD March 1998. **TI** Adjustment Costs of Investment in General Equilibrium: Analytic Results. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/39; 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** E22, E32, O41. **KW** Investment. Adjustment Costs. Identification. Persistence. Volatility.

AB This paper formulates and compares various specifications of investment adjustment costs in a simple dynamic general-equilibrium model and studies their implications by showing some analytic results. One way to introduce adjustment costs is to incorporate them as a constant elasticity of substitution between investment and capital in the capital accumulation equation. Another way is as a nonlinear transformation between consumption and investment in the national income identity. We observe that there is a problem in identifying the two types of adjustment costs and show how to solve the problem. The properties of persistence and volatility are analytically discussed with an emphasis on the size of adjustment costs.

Kind, Hans Jarle

TI What Determines the Economic Geography of Europe? **AU** Haaland, Jan I.; Torstensson, Johan; Kind, Hans Jarle; Knarvik, Karen Helene Midelfart.

Kishore, Vellore

TI Defaults and Returns on High Yield Bonds: Analysis Through 1998 and Default Outlook for 1999-2001. **AU** Altman, Edward I.; Cooke, Diane; Kishore, Vellore.

Kitson, Michael

PD March 1998. **TI** Markets, Competition and Innovation. **AU** Kitson, Michael; Michie, Jonathan. **AA** Kitson: University of Cambridge. Michie: Birkbeck College, University of London. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 84; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 14. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** L11, L14, L15, L21, O31. **KW** Innovation. Collaboration. Competitive Advantage. Reputation. Product Quality.

AB This paper is concerned with the role of innovation and collaboration in the competitive process. Using evidence from recent CBR surveys, it shows that the notion that firms compete in markets where the norm is a large number of customers and competitors misrepresents the competitive process in advanced economies. Additionally, most firms do not compete simply in terms of prices and costs -- other factors such as personal attention to client needs, reputation and product quality are more important. One of the essential ingredients to achieving competitive success is to establish effective collaboration with others -- customers, suppliers, higher education establishments, and so on. Such collaboration allows firms to expand their range of expertise, develop specialist products and achieve other corporate objectives. Collaboration is also one of the most important means of fostering innovation and effective competition in international markets.

Klazar, Martin

PD 1998. **TI** On Maximum Length of Davenport-Schinzel Sequences. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98867; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 12. **PR** no charge. **JE** C44, C60. **KW** Finite Sequences. Alternating Sequences. Constant Factor. Maximum Length.

AB The quantity (Nsubscript5 (n)) is the maximum length of a finite sequence over n symbols which has no two identical consecutive elements and no 5-term alternating subsequence. Improving the constant factor in the previous bounds of Hart and Sharir, and Sharir and Agarwal, we prove that (Nsubscript5 (n)) < 2n alpha (n) + O(n alpha(n) to the one half power), where alpha(n) is the inverse to the Ackermann function. Quantities (N subscript s (n)) can be generalized and any finite sequence, not just alternating, can be assigned extremal function. We present a sequence u* with no 5-term alternating subsequence and with an extremal function >>n2 to the alpha(n) power.

PD 1998. **TI** Counting Pattern-Free Set Partitions I. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98869; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 15. **PR** no charge. **JE** C44, C60. **KW** Set Partitions. Pattern Free. Sequences.

AB A partition u = ([k],tilde subscript u) of [k] = (1, 2, ..., k) is contained in another partition v = ([l],tilde subscript v) if there is an increasing injection of f : [k] maps to [l] such that i tilde subscript u j implies and is implied by f(i) tilde subscript v f(j). We investigate situations when the generating function counting partitions v not containing a given partition u (or a finite set R of partitions) is rational. We prove that this is the case (1) for any R if the number of parts of v is fixed or (2) if u has only singleton parts and at most one doubleton part. We present some examples and conjectures and discuss connections to the problem of forbidden permutations.

Kluve, Jochen

TI Active Labour Market Policies in Poland: Human Capital Enhancement, Stigmatization or Benefit Churning? **AU** Schmidt, Christoph M.; Lehmann, Hartmut; Kluve, Jochen.

Knarvik, Karen

TI What Determines the Economic Geography of Europe? **AU** Haaland, Jan I.; Torstensson, Johan; Kind, Hans Jarle; Knarvik, Karen Helene Midelfart.

Kneip, Alois

TI On Behavioral Heterogeneity. **AU** Hildenbrand, Werner; Kneip, Alois.

PD June 1999. **TI** Inference for Density Families Using Functional Principal Component Analysis. **AU** Kneip, Alois; Utikal, Klaus J. **AA** Kneip: Universite de Louvain. Utikal: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: A/598; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 29. **PR** no charge. **JE** C13, C14, C21. **KW** K-Sample Problems. Density Estimation. Kernel Smoothing. Density Mixtures. Household Income.

AB The authors consider t = 1, ..., T samples of i.i.d. observations {X subscript 1t,...,X subscript n(subt)t} from unknown population densities {f subscript t}. To characterize differences and similarities of {f subscript t} the authors assume their expansions into the first L principal components. From the given observations {X subscript it} they study inference on the components and on their required number L. A detailed asymptotic theory is presented. The authors' method is applied in the analysis of yearly cross sectional samples of British households. Interpretation of the estimated principal components, and their scores give new insights into the evolution and interplay of household income and age distributions form 1968-1988. From estimating their required numbers L the authors draw conclusions on the dimensionality of mixture models for describing the densities.

Kodres, Laura E.

TI A Rational Expectations Model of Financial Contagion. **AU** Pritsker, Matthew G.; Kodres, Laura E.

Koford, Kenneth

PD October 1997. **TI** Problems of Bank Lending in Bulgaria: Information Asymmetry and Institutional Learning. **AU** Koford, Kenneth; Tschoegl, Adrian E. **AA** Koford: University of Delaware. Tschoegl: University of Pennsylvania. **SR** University of Delaware, Department of Economics Working Paper: 97/10; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 37. **PR** no charge. **JE** G21, G24, G28, P34. **KW** Bank Lending. Transition Economies. Collateral. Loan Default.

AB Why are there such severe problems in lending in the

transition countries? We conducted interviews in Bulgaria and Hungary and sought answers to two questions. First, how do banks making "normal" loans insure that they are making "good" loans? Second, how do banks get their money back on loans that have turned bad? The bankers we spoke to reported significant difficulties in accumulating the information to evaluate borrowers and their projects and problems with encouraging borrowers to repay. Policy areas where improvement appears appropriate include enhancing the operation of reputation, the effective use of collateral, and the prosecution of fraud against banks.

PD June 1998. **TI** Trust and Reciprocity in Bulgaria: A Replication of Berg, Dickhaut and McCabe (1995). **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 98/08; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 15. **PR** no charge. **JE** C73, C90, D63, D64. **KW** Reciprocity. Trust. Experiments. Transition Economies.

AB The economic development of transition economies requires that these countries have reasonably high levels of cooperation and trust. Questionnaires, however, may not provide reliable information about the level of these factors in a country. Experiments may better indicate both levels of mutual cooperation in practice and the specific forms of that cooperation. This paper replicates in Bulgaria an experiment carried out by Berg, Dickhaut, and McCabe (1995) in Minnesota, in which the game-theoretic equilibrium behavior is no cooperation. Nevertheless, in both Minnesota and Bulgaria most subjects engaged in reciprocity involving gift giving between anonymous players, and as a result most subjects benefited. The amount of reciprocity was actually higher in Bulgaria, perhaps representing the different social history of Bulgarian students.

PD March 1999. **TI** Citizen Restraints on a "Bandit" Government: Transition Politics in Bulgaria. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 99/02; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 31. **PR** no charge. **JE** D72, P21, P26. **KW** Transition Economies. Bulgaria. Bandit Governments. Rent Extraction.

AB Standard theories of government in transition countries (Olson (1995), Neumarker (1997)), regard politicians and bureaucracies as "bandits" which extract the maximum available resources from the public. Limits on such extraction include a longer time period that the bandit expects to maintain power (which reduces extraction per unit time) and hostile actions from the public. In addition, when "bandits" try to gain wealth quickly and then leave, it is hard for them to work together as a collective. The paper uses these principles to analyze the politics of transition in Bulgaria. Bulgaria, like all transition countries, began with a stationary bandit environment. Bulgarian politicians and bureaucrats appear to have correctly forecast that roving bandits would be the new equilibrium. However, the stylized fact of several governmental collapses suggests that leading political actors underestimated the public's willingness to act against excessive rent extraction by bandits. Political actors also failed to work effectively together to limit resource extraction, and as a result suffered severe political damage.

Kolev, Alexandre

PD November 1998. **TI** Labour Supply in the Informal Economy in Russia during Transition. **AA** European University Institute. **SR** Centre for Economic Policy Research Discussion Paper: 2024; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** J16, J22, J23, J40, P20. **KW** Russia. Labor Supply. Informal Economy. Gender. Labor Markets.

AB This paper investigates the informal labor market in Russia in late 1995 and estimates a labor supply function in the informal sector using nationally representative micro-data from the Russian Longitudinal Monitoring Survey, Round VI. The findings show that the informal economy constitutes a considerable source of additional income for many families, though it is associated with a large degree of wage and gender inequality. Informal job holding appears to be a safety valve for several individuals rationed in the regular labor market, either unemployed or experiencing compulsory periods of unpaid leave. At the same time, however, the data provides little support for the fact that wage arrears and low earnings from the regular economy increase the probability to join the informal sector. For men, the labor supply curve in the informal labor market is forward sloping, but the informal wage does not seem particularly significant for women.

Kontolemis, Zenon G.

TI Government Employment and Wages and Labor Market Performance. **AU** Demekas, Dimitri G.; Kontolemis, Zenon G.

Korte, Bernhard

TI On the Bipartite Travelling Salesman Problem. **AU** Frank, Andras; Korte, Bernhard; Triesch, Eberhard; Vygen, Jens.

TI Efficient Implementation of the Goldberg-Tarjan Minimum-Cost Flow Algorithm. **AU** Bunnagel, Ursula; Korte, Bernhard; Vygen, Jens.

Kramarz, Francis

PD October 1998. **TI** Changes in the Relative Structure of Wages and Employment: A Comparison of Canada, France and the United States. **AU** Kramarz, Francis; Card, David; Lemieux, Thomas. **AA** Kramarz: INSEE. Card: University of California, Berkeley. Lemieux: Universite de Montreal. **SR** Centre for Economic Policy Research Discussion Paper: 2008; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 56. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E24, J23, J31, J38, O33. **KW** Wage Flexibility. Employment Changes. Technical Shocks. Wages. Labor Markets.

AB Standard economic models suggest that adverse demand shocks will lead to bigger employment losses if institutional factors prevent real wages from declining. Some analysts have argued that this insight explains the dichotomy between the United States and Europe. The authors test this hypothesis by comparing recent changes in wage and employment rates for different age and education groups in Canada, France and the United States. They argue that similar trade and technology shocks that led to falling real wages for less-skilled workers in

the United States have affected Canada and France. Consistent with the view that labor market institutions in these countries inhibit wage flexibility, the authors find that the relative wages of less-skilled workers fell less in Canada that in the United States during the 1980's and did not fall in France. Nevertheless, the authors find similar patterns of employment changes by skill group in the three countries.

PD April 1999. **TI** Within-Firm Seniority Structure and Firm Performance. **AU** Kramarz, Francis; Roux, Sebastien. **AA** Kramarz: Crest and London School of Economics. Roux: Crest-Insee. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 420; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 30. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** D24, J63, M12. **KW** Hiring and Firing. Firm Productivity. Profitability. Job Spell.

AB In this article, we examine the relation between hiring and separations, as measured by the within-firm seniority structure and the turnover rate decomposed by job spell durations of the movers, and firm- level performance, as measured by productivity and profitability, or input and skill structure. Our findings show that high turnover rates tend to decrease firm productivity but increase firm profitability for movers with short job spell durations. We also find evidence that firms have separated from their older workers and either replaced them with capital or with younger workers in smaller numbers. These results are related to different models of the labor market. All of these models possess some features that are consistent with these findings.

Krelle, Wilhelm

PD April 1997. **TI** Die Wirkung direkter Auslandsinvestitionen auf Einkommen und Beschaftigung im In- und Ausland. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/404; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 20. **PR** no charge. **JE** F14, F15, F21. **KW** Direct Foreign Investments. Income. Output.

AB This paper is written in a language other than English.

PD August 1997. **TI** How to Deal with Unobservable Variables in Economies. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/414; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 13. **PR** no charge. **JE** C15, C32, C51, C52. **KW** Unobserved Variables. Kalman-Filtering. Principal Components. Factor Analysis. Lisrel.

AB The paper discusses different methods to deal with unobservable variables: Kalman-Filtering, principal components, factor analysis, LISREL, MIMIC, DYMIMIC, PLS with respect to parameter estimation and forecasting. We got very good results by an extension of Kalman- Filtering called AS (general stationary parameter model). LISREL proved to be superior to PLS in parameter estimation. Explicit introduction of the latent variables "mood" of the economic agents, the "political trend" and "social stability" improved the forecasting performance of an econometric model of the FRG.

PD March 1998. **TI** Okonomische Grundlagen der Ethik. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/428; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 32. **PR** no charge. **JE** A12, A13, D63, K10, Z10. **KW** Moral Obligations. Punishment. Development Process. Deterrence. Crime.

AB All possible situations in which a person could act against moral obligations are listed together with the incentives for transgression, following punishments and the probabilities to experience this situation. According to the size of the future discount rate the punishments have a deterrent effect or not. These discount rates (or equivalently: the economic horizons) are differently distributed in the society. From this we derive the morality of and the criminal rate in the society. The distribution of the discount rates follows a Markov- process. The moral standards developed this way will be internalized and justified in different ways (ideologically, philosophically, theologically). The moral rules and the punishments in case of violation are determined by the leading groups in the society. The violations are not necessarily detrimental to the society because they possibly lead to a new order and new leading groups which keeps the development process running.

PD October 1998. **TI** Economics and Ethics Part I. The General Conception. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/441; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 41. **PR** no charge. **JE** A12, A13, D63, E61, Z10. **KW** Ethics. Mutual Influences. Ruling Groups. Decision Making. Policy.

AB In this paper we discuss the influence of ethics on the decisions of persons within the context of mutual influences of one person on another. We show that this leads to a Markov chain, which converges to a final situation independent of the initial conditions. Different types of decisions are considered: those in personal life, those on the general political and economic constitution and on the current economic policy, taken by the ruling group, selection of the ruling group and related situations. At the end the reverse influence is considered: that of the economic development on ethics.

Kuo, George W.

PD February 1998. **TI** Global Equity Styles and Industry Effects: Portfolio Construction via Dummy Variables. **AU** Kuo, George W.; Satchell, Stephen E. **AA** Kuo: Darwin College and University of Cambridge. Satchell: Trinity College and University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9807; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 20. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C51, G12, G15. **KW** Equity Styles. Market Segmentation. Factor Model. Volatility.

AB This paper extends the model of Heston and Rouwenhorst (1994) to investigate the effects of size, value, industry, and country factors on the volatility of stock returns in international stock markets. Country factors dominate the other factors in explaining the return variation. The second most important factors are industry factors followed by value and

size factors. Furthermore, after removing possible influences from country and industry factors, the authors find that a global value effect still exists, whereas a global size effect does not.

Kuon, Bettina

TI An Experimental Investigation of the Option Pricing Approach. **AU** Abbink, Klaus; Kuon, Bettina.

PD March 1999. **TI** Teams Take the Better Risks. **AU** Kuon, Bettina; Mathauschek, Barbara; Sadrieh, Abdolkarim. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/452; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 21. **PR** no charge. **JE** C91, C92, D70, D81, M10. **KW** Decisions Making. Group Decisions. Expected Utility. Portfolio Selection. Risk.

AB Many important economic and political decisions are made by teams. This paper experimentally investigates to what extent observed team decisions under risk are actually consistent with the principles of rational choice, specifically the principles of Expected Utility Theory (EUT) and of Portfolio Selection Theory (PST). The experiment is performed with individuals and teams. The authors find almost no evidence for the greater compliance of team decisions than of individual decisions with the principles of EUT. However, there is substantial evidence for the consistency of team decisions with the PST. Compared to individuals, teams accumulate significantly more expected value at a significantly lower total risk. The authors introduce a team decision algorithm, excess-risk vetoing, which combines majority voting with the right to veto alternatives providing additional risk that is not compensated by additional expected value. The authors find that the results of their experiment are well explained by the excess-risk vetoing.

Laban M., Raul

TI The Return of Private Capital to Chile in the 1990's: Causes, Effects, and Policy Reactions. **AU** Larrain B., Felipe; Laban M., Raul.

Laffargue, Jean-Pierre

PD November 1998. **TI** A Computable General Equilibrium Model of France: Julien 4. **AU** Laffargue, Jean-Pierre; Saint-Martin, Anne. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 9816; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 53. **PR** between 25-35 francs. **JE** C68, E17, E24, E62. **KW** Inequality. Technological Bias. Skills. Trade Unions.

AB This paper presents a computable general equilibrium model, dynamic and with perfect foresight, of the French economy. Instead of calibrating the model in order to be able to reproduce an average year, we have required that the model can reproduce the evolution of the French economy over the 1974-1993 period. To do that, we have introduced some latent variables with an economic meaning. Then we have computed the dynamic multipliers of the main economic policy decisions, and the consequences for employment of the changes in economic policy since 1974.

LaFrance, Jeffrey T.

PD December 1998. **TI** The Structure of U.S. Food Demand. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 862; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 39. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C51, C52, D11, D12, Q11. **KW** Food Demand. Separability. Exogeneity. Model Stability. Econometric Modeling.

AB An econometric model of U.S. food consumption is presented. The model is a flexible, full rank two Gorman polar form, is consistent with economic theory, and accommodates tradeoffs between eating for pleasure and for health. It aggregates across income, demographic variables, and variations in micro demand parameters. New methods are derived and implemented for testing separability of foods from other goods, exogeneity of group expenditure in a separable demand model, global quasi-concavity of the implied preference function, and parameter stability and model specification. The model is estimated with per capita U.S. consumption of 21 food items and 17 nutrients over the period 1918-1994. The empirical results: (a) reject food expenditure as an exogenous variable; (b) reject a stable model structure if World War II is included; (c) fail to reject the specification and parameter stability if World Ware II is excluded; (d) fail to reject Slutsky symmetry in either case.

PD December 1998. **TI** Inferring the Nutrient Content of Food with Prior Information. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 863; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 20. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C11, C52, I12, Q18. **KW** Agricultural Policy. Food Policy. Bayesian Analysis. Method of Moments. Nutrient Content.

AB Given measurements on the nutrient content of the U.S. food supply and a coherent reduced form empirical model of the demand for foods, we can analyze the effect of agricultural farm and food policy on nutrition. Using unpublished documents from the HNIS, estimates of the percentages of seventeen nutrients supplied by twenty-one foods were compiled for the period 1952-1983. The Bayesian Method of Moments is applied to this data set to obtain a proper prior for the purpose of drawing year-to-year inferences about the nutrient content of the U.S. food supply for the period 1909-1994. Information theory and the Kullback-Leibler cross entropy criterion are used to formalize the inference problem.

PD January 1999. **TI** U.S. Food and Nutrient Demand and the Effects of Agricultural Policies. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 864; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 58. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C52, D11, D12, Q11, Q18. **KW** Food Demand. Nutrition. Agricultural Policies. Separability. Exogeneity.

AB An econometric model of annual per capita U.S. food and nutrition demand is developed. The model is a flexible, full

rank two Gorman polar form. It is strictly aggregable across income, demographic variables, and variations in micro preference parameters. Parametric conditions for global quasi-concavity of the (quasi-)utility function are derived. The model is implemented with annual time series data on U.S. per capita food consumption for the sample period 1918-1994. A battery of new test statistics are developed for and applied to the following hypotheses: (1) strict exogeneity of income or total expenditures; (2) global symmetry and negative semidefiniteness of the Slutsky substitution matrix; (3) parameter stability in a multivariate, nonlinear regression model based on within sample residuals; and (4) weak separability of food items from all other goods in the representative consumer's preference function. The empirical results are very encouraging with respect to the strictures of economic theory.

Lambelet, Jean-Christian

PD April 1998. **TI** Assainissement des Finances Publiques Suisses. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9808; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 82. **PR** no charge. **JE** E62, H61, H62. **KW** Public Finance. Budgetary Surplus. Deficits. Fiscal Policy. Swiss Federal Budget.

AB A new method is proposed to measure the underlying ("structural") surplus/deficit of a government budget. It does not rest on the notion of "full-employment GDP" but aims at modeling the fiscal behavior of the government in the widest sense. The basic idea is to identify what is systematic in that behavior from what is noise. The model is simple, yet econometrically quite robust. It is estimated with Swiss data and the results seem to make good sense. The paper includes a number of comments relating to current Swiss fiscal issues.

PD October 1998. **TI** Aspects Economiques du Droit de la Concurrence Applique aux Activites Bancaires. **AU** Lambelet, Jean-Christian; Mihailov, Alexander. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9818; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 34. **PR** no charge. **JE** G21, G28, K21, L13, L43. **KW** Bank Mergers. Acquisitions. Banking Regulation. Competition Policy. Antitrust Laws.

AB This paper starts by reviewing the recent literature on antitrust laws in banking from the perspective of general economic analysis. The authors focus on the U.S. experience for didactic reasons and as a background against which the Swiss case is discussed further on. After an introductory section, the authors examine some facts about the process of bank expansion, concentration and mergers in the U.S. during the 1980's and 1990's, and then turn to the driving forces as well as the economic concepts used in assessing possible anticompetitive effects. A third section focuses on the origins and development of the legal framework of banking and competition policy. A brief fourth section summarizes the conclusions and lessons to be derived from the American experience. Finally, in a fifth section, the authors offer some reflections on the case of Switzerland, which mirrors the U.S. as far as the legal, institutional and empirical aspects.

Lane, Christel

TI Performance Standards in Supplier Relations: Relational contracts, Organisational Processes and the Institutional Environment. **AU** Deakin, Simon; Lane, Christel; Wilkinson, S. Frank.

Lane, Philip R.

TI Voracity and Growth. **AU** Tornell, Aaron; Lane, Philip R.

Langot, F.

TI Labor-Market Search, Welfare Ranking and the Real Wage Over the Business Cycle. **AU** Cheron, A.; Langot, F.

TI The Phillips and Beveridge Curves Revisited. **AU** Cheron, A.; Langot, F.

Lanjouw, Jean O.

TI Patent Suits: Do They Distort Research Incentives? **AU** Schankerman, Mark; Lanjouw, Jean O.

Larrain B., Felipe

PD March 1998. **TI** The Return of Private Capital to Chile in the 1990's: Causes, Effects, and Policy Reactions. **AU** Larrain B., Felipe; Laban M., Raul. **AA** Larrain: Harvard University. Laban: Catholic University of Chile. **SR** Harvard Institute for International Development, Development Discussion Paper: 627; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 28. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** E63, F21, F32, F36, F41. **KW** Capital Flows. Capital Controls. Economic Integration. Exchange Rates. Chile.

AB This paper analyzes the factors behind Chile's renewed access to voluntary international capital markets since the early 1990's, the policy challenges that this has brought about, as well as the responses of policymakers to these challenges. Increasing financial integration at the world level is a result of many forces, including the rise in world trade, technological and financial innovation, and deregulation. Domestic factors, however, have played at least as big a role in attracting foreign capital into Chile. The analysis stresses the fact that increased capital mobility has brought Chile new opportunities, but also new challenges. The authors discuss how and why capital inflows to Chile increased so dramatically since the early 1990's, they evaluate the policy challenges posed by this increased capital inflow, and the reactions of Chilean authorities to this new reality. In particular, the authors analyze the roles of exchange rate policy, sterilization, and capital controls.

Larson, Bruce A.

PD January 1998. **TI** Avoiding Health Risks from Drinking Water: Theory and Moscow Survey Results. **AU** Larson, Bruce A.; Gnedenko, Ekaterina. **AA** Larson: Harvard University. Gnedenko: Higher School of Economics, Moscow. **SR** Harvard Institute for International Development, Development Discussion Paper: 619; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 14. **PR** paper

copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D13, H40, I12, Q25. **KW** Avoidance. Averting Behavior. Drinking Water. Health. Moscow.

AB Based on a recently completed survey of 615 households in Moscow, this paper investigates the types and amounts of avoidance measures that are used by households in Moscow to adjust drinking water quality. Survey results show that: over 88 percent of the sample boil water regularly; 23 percent filter water regularly; over 30 percent settle water regularly; and about 13 percent buy bottled water regularly. On the other hand, residents are generally content with their cold water supply and quality of delivery. Based on a microeconomic model of household avoidance behavior, logit regression results show how avoidance decisions relate to income, opinions of water quality and location in the city. It is expected that this analysis from Moscow can also be used as a guide for future studies in other cities in Russia to evaluate opinions of quality, avoidance measures, and citizens' willingness to support public infrastructure projects.

PD January 1998. **TI** How Does Uncertainty over Future Environmental Policy Affect Investment Decisions in Transition Economies? **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 623; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 33. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D92, Q28. **KW** Policy Uncertainty. Investment. Taxation. Environmental Policy. Investment Credits.

AB A firm-level sequential investment model is developed to analyze how uncertainty about environmental policies in the future affects current investment decisions. Three specific policies are considered -- a pollution tax, an investment credit in the presence of liquidity constraints, and a pollution standard. Using a location-scale framework for expectations, the analysis shows how expectations about the future policy (i.e. the mean and variance of the future tax, credit, or standard) affect current investment decisions. A numerical example using a general CES production technology is used throughout the paper to illustrate results. Regarding mean effects, this analysis shows how the impacts of changed expected policy levels depend on the distribution of related elasticities in the future period. Regarding variance effects, the analysis shows how more uncertainty about a future policy reduces (increases) investment incentives when such investment makes the firm less (more) flexible to respond to policy changes in future periods.

Laskar, Daniel

TI Private Information: An Argument for a Fixed Exchange Rate System. **AU** Aubert, Ludovic; Laskar, Daniel.

Laurent, Jean-Paul

PD December 1998. **TI** Building a Consistent Pricing Model from Observed Option Prices. **AU** Laurent, Jean-Paul; Leisen, Dietmar P. J. **AA** Laurent: Center for Research in Economics and Statisicts. Leisen: Stanford University and University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/443; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 23. **PR** no charge. **JE** C51, G13, G14. **KW** Markov Chain. Arbitrage. Cross-Entropy. Model Risk. Option Pricing.

AB This paper constructs a model for the evolution of a risky security that is consistent with a set of observed call option prices. It explicitly treats the fact that only a discrete data set can be observed in practice. The framework is general and allows for state dependent volatility and jumps. The theoretical properties are studied. An easy procedure to check for arbitrage opportunities in market data is proved and then used to ensure the feasibility of our approach. The implementation is discussed: testing on market data reveals a U-shaped form for the "local volatility" depending on the state and, surprisingly, a large probability for strong price movements.

PD January 1999. **TI** Variance Optimal Cap Pricing Models. **AU** Laurent, Jean-Paul; Scaillet, Oliver. **AA** Laurent: CREST. Scaillet: Universite Catholique de Louvain. **SR** Document de Travail du CREST: 9907; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 41. **PR** no charge. **JE** C40, G13. **KW** Discount Bond. Cap Pricing. Volatility Smile. Implied Pricing.

AB This paper proposes new closed-form pricing formulas for interest rate options which guarantee perfect compatibility with volatility smiles. These cap pricing formulas are computed under variance optimal measures in the framework of the market model or the Gaussian model and achieve an exact calibration of observed market prices. They are presented in a general setting allowing the study of model and numeraire choice effects on the computed prices. Numeraire dependencies are particularly emphasized. A numerical example and an empirical application to market data are given to illustrate the practical use of the calibration procedure.

PD February 1999. **TI** Building a Consistent Pricing Model from Observed Option Prices. **AU** Laurent, Jean-Paul; Leisen, Dietman. **AA** Laurent: CREST. Leisen: Stanford University. **SR** Document de Travail du CREST: 9909; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 24. **PR** no charge. **JE** C51, G13, G14. **KW** Markov Chain. No-Arbitrage. Cross-Entropy. Model Risk.

AB See the abstract for Jean-Paul Laurent and Dietmar P. J. Leisen. December 1998. "Building a Consistent Pricing Model from Observed Option Prices". Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/443; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers.

Lawson, Clive

PD December 1997. **TI** Towards a Competence Theory of the Region. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 81; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 19. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** L20, O31, R11, R12. **KW** Competence Theory. Regional Competencies. High-Technology Firms. Regional Production.

AB The main argument of this paper is that there are good grounds for extending the competence theory of the firm, or

more generally the competence perspective, to analysis of the region -- where the region is understood as a geographically defined productive system. The relevance of the perspective to regional study follows from the characterization of both regions and firms as ensembles of competences that emerge from social interaction. Attention is drawn to an identifiable (but rarely acknowledged) convergence of ideas in the recent regional literature, and it is argued that these ideas are best conceptualized in terms of regional competences. The cluster of high technology firms in the Cambridge region of the UK is briefly considered in order to illustrate the main ideas of the paper.

TI Collective Learning Processes and Inter-Firm Networking in Innovative High-Technology Regions. **AU** Keeble, David; Lawson, Clive; Lawton Smith, Helen; Moore, Barry; Wilkinson, S. Frank.

Lawton Smith, Helen

TI Collective Learning Processes and Inter-Firm Networking in Innovative High-Technology Regions. **AU** Keeble, David; Lawson, Clive; Lawton Smith, Helen; Moore, Barry; Wilkinson, S. Frank.

Layard, Richard

TI Labour Market Institutions and Economic Performance. **AU** Nickell, Stephen; Layard, Richard.

Le Van, Cuong

TI Debt, Corruption, R&D and Growth in Developing Countries. **AU** Dimaria, Charles-Henri; Le Van, Cuong.

Leahy, Dermot

TI Strategic Trade and Industrial Policy Towards Dynamic Oligopolies. **AU** Neary, J. Peter; Leahy, Dermot.

Lee, In Ho

TI Learning-by-Doing and the Choice of Technology: The Role of Patience. **AU** Karp, Larry S.; Lee, In Ho.

Lee, Kevin C.

TI Cross-Sectional Aggregation of Non-Linear Models. **AU** Van Garderen, Kees Jan; Lee, Kevin C.; Pesaran, M. Hashem.

TI A Long-Run Structural Macroeconometric Model of the UK. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol.

TI A Structural Cointegrating VAR Approach to Macroeconometric Modelling. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol.

Lehmann, Hartmut

TI Active Labour Market Policies in Poland: Human Capital Enhancement, Stigmatization or Benefit Churning? **AU** Schmidt, Christoph M.; Lehmann, Hartmut; Kluve, Jochen.

Lehnert, Andreas

PD December1998. **TI** Asset Pooling, Credit Rationing, and Growth. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/52; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 62. **PR** no charge. **JE** E44, G21, G31, G33, O15. **KW** Asset Pooling. Credit Rationing. Roscas. Growth. Financial Intermediation.

AB I study the effect of improved financial intermediation on the process of capital accumulation by augmenting a standard model with a general contract space. With the extra contracts, intermediaries endogenously begin using ROSCA's, or Rotating Savings and Credit Associations. These contracts allow poor agents, previously credit rationed, access to credit. As a result, agents work harder and total economy-wide output increases; however, these gains come at the cost of increased inequality. I provide sufficient conditions for the allocations to be Pareto optimal, and for there to be a unique invariant distribution of wealth. I provide an analytic characterization of a simple model and use numerical techniques to study more general models.

Leisen, Dietman

TI Building a Consistent Pricing Model from Observed Option Prices. **AU** Laurent, Jean-Paul; Leisen, Dietman.

Leisen, Dietmar P. J.

TI Building a Consistent Pricing Model from Observed Option Prices. **AU** Laurent, Jean-Paul; Leisen, Dietmar P. J.

PD January 1999. **TI** Valuation of Barrier Options in a Black-Scholes Setup with Jump Risk. **AA** Stanford University and University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/446; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 18. **PR** no charge. **JE** C63, G12, G13. **KW** Binomial Models. Option Pricing. Lattice Models. Barrier Options. Asset Pricing.

AB This paper discusses the pitfalls in the pricing of barrier options using approximations of the underlying continuous processes via discrete lattice models. These problems are studied first in a Black-Scholes model. Improvements result from a trinomial model and a further modified model where price changes occur at the jump times of a Poisson process. After the numerical difficulties have been resolved in the Black-Scholes model, unpredictable discontinuous price movements are incorporated.

PD May 1999. **TI** Stock Evolution under Stochastic Volatility: A Discrete Approach. **AA** Stanford University. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/407; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 17. **PR** no charge. **JE** G13. **KW** Binomial Model. Option Pricing. Lattice Approach. Stochastic Volatility. Diffusion Processes.

AB This paper examines the pricing of options by approximating extentions of the Black-Scholes setup in which volatility follows a separate diffusion process. It generalizes the well-known binomial model, constructing a discrete two-dimensional lattice. We discuss convergence issues extensively and calculate prices and implied volatilities for European- and American-style put options.

Lemieux, Thomas

TI Changes in the Relative Structure of Wages and Employment: A Comparison of Canada, France and the United States. **AU** Kramarz, Francis; Card, David; Lemieux, Thomas.

Lengwiler, Yvan

PD June 1998. **TI** The Multiple Unit Auction with Variable Supply. **AA** Board of Governors of the Federal Reserve System and Swiss National Bank. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/28; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 17. **PR** no charge. **JE** C72, D44, D82, L12. **KW** Multiple Unit Auctions. Uniform Price. Price Discrimination. Elastic Supply. Decreasing Valuation.

AB The theory of multiple unit auctions traditionally assumes that the offered quantity is fixed. The author argues that this assumption is not appropriate for many applications because the seller may be able and willing to adjust the supply to the bidding. This paper addresses this shortcoming by analyzing a multi-unit auction game between a monopolistic seller who can produce arbitrary quantities at constant unit cost, and oligopolistic bidders. The author establishes the existence of a subgame-perfect equilibrium for price discriminating and for uniform price auctions. It is also shown that bidders have an incentive to misreport their true demand in both auction formats, but they do that in different ways and for different reasons. Furthermore, both auction formats are inefficient, but there is no unambiguous ordering among them. Finally, the more competitive the bidders are, the more likely the seller is to prefer uniform pricing over price discrimination.

PD June 1998. **TI** Certainty Equivalence and the Non-Vertical Long Run Phillips-Curve. **AA** Board of Governors of the Federal Reserve System and Swiss National Bank. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/36; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 7. **PR** no charge. **JE** D81, D82, D84, E24, E31. **KW** Rational Expectations. Expected Utility. Certainty Equivalence. Jensen's Inequality. Phillips Curve.

AB The certainty equivalence principle states that only the mean of a random variable is relevant to a rational decision-maker facing uncertainty. This principle simplifies the application of the idea of rational expectations considerably. Yet, certainty equivalence does not in general apply outside of the special case of quadratic objective function subject to linear constraints. I use the standard augmented Phillips-Curve to demonstrate the significant effects that occur with the breakdown of certainty equivalence.

Leone, Alfredo M.

TI Can Currency Demand be Stable Under a Financial Crisis? The Case of Mexico. **AU** Khamis, May; Leone, Alfredo M.

Leruth, Luc

TI Daily Wages and Piece Rates in Agrarian Economies. **AU** Baland, Jean-Marie; Dreze, Jean; Leruth, Luc.

Levich, Richard M.

PD September 1998. **TI** Alternative Tests for Time Series Dependence Based on Autocorrelation Coefficients. **AU** Levich, Richard M.; Rizzo, Rosario C. **AA** Levich: New York University. Rizzo: Bank of Italy. **SR** New York University, Salomon Center Working Paper: S/99/08; 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** 26. **PR** $5.00 each; $100.00 yearly subscription. **JE** C12, C15, C32, F31. **KW** Autocorrelation. Hypothesis Testing. Time Series Dependence. Currency Futures. Simulation.

AB When autocorrelation is small, existing statistical techniques may not be powerful enough to reject the hypothesis that a series is free of autocorrelation. The authors propose two new and simple statistical tests (RHO and PHI) based on the unweighted sum of autocorrelation and partial autocorrection coefficients. They analyze a set of simulated data to show the higher power of RHO and PHI in comparison to conventional tests for autocorrelation, especially in the presence of small but persistent autocorrelation. They show an application of their tests to data again to show the higher power of RHO and PHI. The authors show an application of their tests to data on currency futures to demonstrate their practical use. Finally, they indicate how their methodology could be used for a new class of time series models (the Generalized Autoregressive, or GAR models) that take into account the presence of small but persistent autocorrelation.

TI Underpricing of New Equity Offerings by Privatized Firms: An International Test. **AU** Huang, Qi; Levich, Richard M.

Levin, Andrew

PD November 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** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/45; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 55. **PR** no charge. **JE** E31, E32, E52, E58, E61. **KW** Monetary Policy. Policy Rules. Model Uncertainty. Rational Expectations. Inflation.

AB This paper investigates the performance of monetary policy rules in four macroeconometric models: the Fuhrer-Moore model, Taylor's Multi- Country Model, the MSR model of Orphanides and Wieland, and the FRB staff model. All four models assume rational expectations, short-run nominal rigidity, and long-run monetary neutrality, but differ in many other respects. The authors compute the output-inflation volatility frontiers for alternative classes of interest rate rules. The 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 inflation from a specified target. First-difference rules perform essentially just as well as more complicated rules that respond to a larger number of variables and lags. Furthermore, they are 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 frontiers in the other models.

Lewis, Kenneth A.

PD June 1999. TI Funding Social Security: The Transition in a Life-Cycle Growth Model. AU Lewis, Kenneth A.; Seidman, Laurence S. AA University of Delaware. SR University of Delaware, Department of Economics Working Paper: 99/04; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. PG 15. PR no charge. JE D91, H55, I38, J11. KW Social Security. Cohort Welfare. Pay-As-You-Go. Life-Cycle Model.

AB This paper uses a perfect-foresight life-cycle growth model to investigate the impact of gradually converting the financing of social security from pay-as-you-go (PAYGO) to full funding. The funding can be achieved either by privatization or by a single large fund managed by private firms. The paper compares PAYGO and funded steady rates, and analyzes the transition path from PAYGO to a fully funded system. It uses empirically-reasonable parameter values based on the econometric literature. It differs from earlier studies in focusing on the sensitivity of the pattern of cohort losses and gains to the speed of phasing out PAYGO social security and to plausible changes in key parameter values. We find that there is a substantial difference in the pattern of cohort welfare depending on whether the PAYGO phase out is over 45, 60, 75, or 90 years. Transition path simulations of a gradual three-generation (90-year) conversion show small losses to current workers, but larger gains to children and grandchildren of young workers. We draw no conclusions concerning the impact of funding on social welfare or economic efficiency.

Li, David D.

TI Risk Arbitrage in Takeovers. AU Cornelli, Francesca; Li, David D.

Liberati, Paolo

TI Towards a Two-Rate VAT in Italy: Distributional and Welfare Effects. AU Gastaldi, Francesca; Liberati, Paolo.

Licandro, Omar

TI Endogenous Vs. Exogenously Driven Fluctuations in Vintage Capital Models. AU Boucekkine, Raouf; Del Rio, Fernando; Licandro, Omar.

Ligon, Ethan

PD June 1995. TI Computing Private Information Equilibria: Moral Hazard in an Indian Village. AA University of California, Berkeley. SR University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 759; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. PG 15. PR 25 cents per page domestic; 50 cents per page foreign. JE D82. KW Computing Private Information. General Equilibrium.

AB Simulata is the name the author gives to an imaginary village, modeled very loosely after the ICRISAT villages in India. The life of the inhabitants of Simulata is simple; all they ever do is grow grain and eat it. They do this every period, forever. The sole inputs to grain production are land and labor, and output is uncertain. To reduce risk, they pool their output. For simplicity, the author assumes that the (risk neutral) village chief acts as an intermediary. The chief piles up the entire output of the village, and gives some grain back to each agent, depending on what the chief knows about how hard the agent worked and how much grain each agent produces in total. The author is principally interested in how different sorts of information problems might affect life in Simulata. He discusses two cases: the full information case and the hidden action case.

Lindauer, David L.

PD May 1998. TI Labor and Poverty in the Republic of Moldova. AA Harvard University and Wellesley College. SR Harvard Institute for International Development, Development Discussion Paper: 635; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. PG 15. PR paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. JE I32, J22, J64, O15, P23. KW Labor Force. Poverty. Unemployment. Transition Economies. Moldova.

AB Since independence in 1991 the Republic of Moldova has been hit by a series of external and internal shocks. A recently completed pilot of the Moldovan Household Budget Survey permits an assessment of how declines in output have affected labor market outcomes. There have been significant labor market adjustments, including double-digit open unemployment, low rates of labor force participation especially among older workers, and falling real wages. Some of these results run counter to outcomes reported by official sources. The labor market correlates of poverty reveal that poverty rates (30%) are especially high for the unemployed. This compares to a national poverty rate of 23%, with the elderly and those who are of working age and out of the labor force faring relatively better. Children represent almost one third of the nation's poor and have a poverty rate of over 30%, a consequence of their parents' low wages and unemployment.

Linnemer, Laureut

TI Intermodal Competition, Firms' Location and Asymmetries in Regional Surpluses. AU Combes, Pierre P.; Linnemer, Laureut.

Lisi, Francesco

PD January 1997. TI One-Step Prediction of Chaotic Time Series by Multivariate Reconstruction. AA Padua University. SR Document de Travail du CREST: 9702; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. PG 20. PR no charge. JE C22, C32, C53, F31. KW Embedding. Deterministic Chaos. Prediction. Exchange Rates.

AB It is well known that when dealing with possibly chaotic time series, it is necessary to reconstruct a pseudo state space. This paper studies, via simulations, a possible multivariate reconstruction and its effects on the one step prediction. The same predictive method is used both for the classical univariate reconstruction and the multivariate one. Finally, an application to monthly exchange rates has been made.

Llinares, Emmanuel

PD September 1998. TI Peak-Load Pricing of Ski-Lift Tickets in the United States. AU Llinares, Emmanuel; Mulligan, James G. AA University of Delaware. SR University of Delaware, Department of Economics

Working Paper: 98/10; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 25. **PR** no charge. **JE** D21, D43, L11, L83. **KW** Peak-Load Pricing. Ski Industry. Lift Tickets. Optimal Pricing.

AB Industry-wide peak-load pricing among competitive firms, such as hotels, restaurants, and airlines, is common. The variation in prices in these industries follows a fairly predictable industry-wide pattern due to the time of day, week or year. By contrast, only approximately sixty percent of U.S. ski areas have single-day lift ticket prices that vary between the weekday and weekend during the ski season. This research adapts a two period Bertrand-Nash model of competitive peak-load pricing due to Gerstner (1986) to the optimal pricing strategy of a competitive ski area and provides empirical evidence on the factors that influence the decision of whether or not to adopt peak-load pricing of single day lift tickets. We hypothesize and find that the presence of more young people living close to the ski area, the lack of single-day skiing alternatives to local skiers, and a higher vertical drop all lower the ski area's incentive to use peak-load pricing of single-day lift- tickets.

PD July 1999. **TI** Technological Change of Service Speed. **AU** Llinares, Emmanuel; Mulligan, James G. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 99/05; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 34. **PR** no charge. **JE** L11, L80, O31, O33. **KW** Service Capacity. Service Speed. Time-Saving Innovations. Market Structure.

AB At retail outlets, fast-food restaurants, medical services, and ski areas, waits in queues are common, and speed of service is important to consumers. We argue that deriving testable hypotheses concerning the effect of time-saving process innovations on market prices and market structure requires more detailed modeling of the firm's service capacity than has appeared to date in the literature. In support of this claim we report empirical regularities that can only be explained by a more detailed modeling of the service capacity.

Lockwood, Ben

PD December 1998. **TI** Distributive Politics and the Cost of Decentralization. **AA** University of Warwick. **SR** Centre for Economic Policy Research Discussion Paper: 2046; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D72, H41, H72, H73. **KW** Decentralization. Distributive Politics. Public Goods. Externalities.

AB This paper integrates the distributive politics literature with the literature on decentralization by incorporating inter-regional project externalities into a standard model of distributive policy. A key finding is that the degree of uniformity (or 'universalism') of the provision of regional projects is endogenous and depends on the strength of the externality. The efficiency of decentralization and the performance of "constitutional rules" (such as majority voting) which may be used to choose between decentralization and centralization are then discussed in this framework. Stronger externalities and more heterogeneity between regions need not imply that decentralization becomes more efficient.

Loisel, Olivier

TI Coordination, Cooperation, Contagion and Currency Crises. **AU** Martin, Philippe; Loisel, Olivier.

Lollivier, Stefan

PD 1997. **TI** Inegalites et Cycles de Vie: Les Liens Entre Consommation, Patrimoine et Revenu Permanent. **AU** Lollivier, Stefan; Verger, Daniel. **AA** Lollivier: INSEE. Verger: INSEE, CREST. **SR** Document de Travail du CREST: 9710; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 36. **PR** no charge. **JE** C21, D31, D91. **KW** Permanent Income. Income Inequality. Elasticities. Life Cycle.

AB The aim of this paper is the construction of a proxy for permanent income in a cross sectional survey. External macroeconomic information is used to compute past earnings. Income inequalities are compared after computations based on current earnings and on lifetime earnings. Income inequalities decrease only slightly. Inequalities tied to age disappear but are replaced by inequalities due to the renewal of population. The variable is also used to compute elasticities with private consumption and private wealth. In both cases, the permanent income variable leads to a better fit than current income.

Look, Stefan

PD March 1998. **TI** The Stochastic Finite Element Method and Application in Option Pricing. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/429; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 12. **PR** no charge. **JE** C60, G13. **KW** Differential Equations. Stochastic Finite Element. Homogeneous Chaos. Karhunen-Loeve Expansion. Option Pricing.

AB The purpose of this paper is to present a numerical method to solve partial stochastic differential equations. This concept leaves the differential operator unchanged but discretizes the dimension of the problem. The response function will be decomposed by the Karhunen-Loeve expansion and approximated by deterministic base functions and Homogeneous Chaos. Application to option pricing will be made.

Lotz, Christopher

PD May 1998. **TI** Locally Minimizing the Credit Risk. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/433; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 34. **PR** no charge. **JE** G12, G13. **KW** Credit Risk. Incomplete Markets. Risk Minimization. Defaultable Bonds. Option Pricing.

AB The aim of this paper is the valuation and hedging of defaultable bonds and options on defaultable bonds. The Heath/Jarrow/Morton- framework is used to model the interest rate risk, and the time of default is determined by the first jump time of a point process. In the first part, the authors consider valuation and hedging of a defaultable bond. The firm value process is modeled explicitly, and is used to determine the default intensity or the payout ratio after default. Incompleteness of markets arises naturally, and therefore the authors apply the local risk-minimizing methodology

introduced by Follmer, Schweizer and Sondermann to determine a martingale measure and to calculate hedging strategies. In their model, the authors can hedge partly against the risk of default because they assume that the firm value is a traded asset. In the second part, the authors consider the valuation and hedging of options on defaultable bonds.

Lux, Thomas

PD July 1998. **TI** The Limiting Extremal Behaviour of Speculative Returns: An Analysis of Intra-Daily Data from the Frankfurt Stock Exchange. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/436; Sonderforschungsbereich 303; Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 20. **PR** no charge. **JE** C13, C51, G12. **KW** Stock Returns. High Frequency Data. Extreme Value Theory. Tail Index Estimation. Speculative Returns.

AB This paper provides a statistical analysis of high-frequency recordings of the German share price index DAX. This study focuses on the limiting behavior characterizing the tail regions of the empirical distribution. Application of the popular Hill estimator for the tail shape yields results very similar to those of other analyses of speculative returns. However, since the reliability of tail index estimation rests on the appropriateness of the tail regions, the question of optimally choosing the sample fraction emerges. Exploiting recent advances in extreme value theory, the author applies a couple of novel approaches for determining the optimum cut-off value for the "tail" of the empirical distribution. As it turns out, most algorithms suggest that one has to go out quite far into the tails for estimation of the extremal index. A test for stability of extreme value behavior over time gives no clear indication of changes of the limiting distribution.

PD July 1998. **TI** Volatility Clustering in Financial Markets: A Micro-Simulation of Interacting Agents. **AU** Lux, Thomas; Marchesi, Michele. **AA** Lux: University of Bonn. Marchesi: University of Cagliari. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/437; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 25. **PR** no charge. **JE** C63, D84, G12. **KW** Volatility Clustering. Interacting Agents. On-Off Intermittency. ARCH Effects. Chartist Strategies.

AB The finding of clustered volatility and ARCH effects is ubiquitous in financial data. This paper presents a possible explanation of this phenomenon within a multi-agent framework of speculative activity. In the model, both chartist and fundamentalist strategies are considered with agents switching between both behavioral variants according to observed differences in pay-offs. Price changes are brought about by a market maker reacting to imbalances between demand and supply. Outbreak of volatility occurs if the fraction of agents using chartist techniques surpasses a certain threshold value, but such phases are quickly brought to an end by stabilizing tendencies. Formally, this pattern can be understood as an example of a new type of dynamic behavior denoted on-off intermittency in physics literature. Statistical analysis of simulated time series shows that the main stylized facts (unit roots in levels together with heteroskedasticity and leptokurtosis of returns) can be found in this "artificial" market.

PD July 1998. **TI** Scaling and Criticality in a Stochastic Multi-Agent Model of a Financial Market. **AU** Lux, Thomas; Marchesi, Michele. **AA** Lux: University of Bonn. Marchesi: University of Cagliari. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/438; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 12. **PR** no charge. **JE** D84, F31, G12. **KW** Speculative Behavior. Interactive Agents. Scaling. Power Laws. Asset Pricing.

AB This paper reports statistical analyses performed on simulated data from a stochastic multi-agent model of speculative behavior in a financial market. The price dynamics resulting from this artificial market process exhibits the same type of scaling laws as do empirical data from stock markets and foreign exchange markets: (i) one observes scaling in the tails of the probability distribution of relative price changes (returns) with an exponent alpha approximately equal to 2.6, (ii) volatility shows significant long-range correlations with a self- similarity parameter. This happens although it is assumed that news about the intrinsic or fundamental value of the asset prices is insufficient to explain either of the characteristics (i) or (ii). In this paper's model, the main "stylized facts" of financial data originate from the working of the market itself and one need not resort to scaling in unobservable extraneous signals as an explanation for the behavior of financial prices.

PD November 1998. **TI** A Note on the Stochastic Properties of German Stock Returns. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/444; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 11. **PR** no charge. **JE** C12, G12, G14. **KW** Stock Returns. Extreme Value Theory. Tail Index Estimation. Infinite Variance. Asset Pricing.

AB This note reconsiders divergent results on the extremal behavior of German stock returns that have been published recently. In particular, recent investigations of this issue have arrived at different conclusions regarding the finiteness of the second moment of the return distributions. Here we apply some recent, improved techniques for the estimation of the so-called tail index to the time series of returns on various German stocks. We find evidence indicating that in the vast majority of cases the tails are not fat enough to conform with an infinite-variance distribution. Conflicting results in previous studies are shown to be due to different a priori choices of the size of the tail region.

TI Testing for Non-Linear Structure in an Artificial Financial Market. **AU** Chen, Shu-Heng; Lux, Thomas; Marchesi, Michele.

Lyons, Robert

PD May 1998. **TI** A Dynamic Model of the Food Processing Sector in the New Market Economies of Central Europe. **AU** Lyons, Robert; Goodhue, Rachel E.; Rausser, Gordon C.; Simon, Leo K. **AA** Lyons, Rausser, and Simon: University of California, Berkeley. Goodhue: University of California, Davis. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 859; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 14. **PR** 25

cents per page domestic; 50 cents per page foreign. **JE** D21, D40, L66, Q17, Q18. **KW** Dynamic Models. Food Processing. Agricultural Policy. Transition Economies. Central Europe.
AB This paper describes a dynamic economic policy simulation model of the food processing industry in the new market economies of Central Europe. Agricultural policy models, even those used to evaluate transition economies, traditionally have focused on commodity flows. The authors' model focuses on firm behavior. This change in focus allows for the identification and evaluation of the important interrelationships between trade liberalization, competitiveness policy, and credit policy in a dynamic, imperfectly competitive agricultural economy.

Maclennan, Duncan

TI Asymmetries in Housing and Financial Market Institutions and EMU. **AU** Muellbauer, John; Maclennan, Duncan; Stephens, Mark.

Maggi, Giovanni

TI Diversity and Trade. **AU** Grossman, Gene M.; Maggi, Giovanni.

Manacorda, Marco

PD January 1999. **TI** Just Can't Get Enough: More on Skill-Biassed Change and Labour Market Performance. **AU** Manacorda, Marco; Manning, Alan. **AA** Manacorda: University College London and London School of Economics. Manning: London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 412; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 34. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** E24, J31, J64. **KW** Unemployment. Wage Inequality. Skill-Biased Change. Skill Mismatch.
AB It is common to hear the argument that poor labor market performance in OECD countries in recent years is the result of shifts in relative demand against less-skilled workers. But, there is much dispute about whether these trends have been occurring and, if they have, how important they are in quantitative terms. In part, these problems come from the absence of a clear conceptual framework in which to think about these issues. In this paper we propose such a framework and a measure of skill mismatch that is independent of the definitions of skill, and demonstrate using data from a number of countries how it can be used to assess the importance in skill-biased change in understanding labor market changes in recent years. Our findings suggest that while increased skill mismatch does seem to have occurred in the U.S. and UK, it has not occurred in the other European countries in our sample.

Manning, Alan

TI Just Can't Get Enough: More on Skill-Biassed Change and Labour Market Performance. **AU** Manacorda, Marco; Manning, Alan.

PD March 1999. **TI** Pretty Vacant: Recruitment in Low-Wage Labour Markets. **AA** London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 418; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 23. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** J63, J64. **KW** Vacancies. Recruitment. Labor Market. Low-Wage Jobs.
AB This paper is a study of the process by which employers in five relatively low-wage British firms fill vacancies. It studies the determinants of the number and quality of applicants, the way in which these applicants are selected for interviews and offered jobs. The main conclusions are that the number of applicants is relatively small, the monetary and non-monetary aspects of jobs are important determinants of the number of applicants for jobs, but that firms do eventually fill virtually all vacancies. Non-employed job-applicants have more difficulty in getting a job interview than those who are currently employed but, once interviewed, do not appear to face any further difficulties in getting employment.

Marakulin, Valeri M.

PD 1998. **TI** Production Equilibria in Vector Lattices with Unordered Preferences: An Approach Using Finite-Dimensional Approximations. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 9821; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 30. **PR** between 25-35 francs. **JE** C62, D51. **KW** Vector Lattice. Competitive Production. Equilibrium. Uniform Properness.
AB The goal of the paper is to prove the existence of competitive production quasi-equilibria in linear lattices. We assume that the commodity space is a vector lattice endowed with a Hausdorff locally convex topology such that the positive cone is closed and the topological dual is a lattice. Preferences are not assumed to be transitive and complete. We allow also a rather arbitrary form of consumption sets which, together with production sets, satisfy a kind of proper condition. This condition (a set to be proper) is significantly weakened in comparison with other papers. The existence result is stated via the method of finite-dimensional approximations of the commodity space.

Marchand, Hugues

PD June 1998. **TI** Aggregation and Mixed Integer Rounding to Solve MIPs. **AU** Marchand, Hugues; Wolsey, Laurence A. **AA** Marchand: Universite Catholique de Louvain. Wolsey: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9839; 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** C61, C63. **KW** Mixed Integer Programming. Cutting Planes. Mixed Integer Cuts. Gomory.
AB A separation heuristic for mixed integer programs is presented that theoretically allows one to derive several families of "strong" valid inequalities for specific models and computationally gives results as good as or better than those obtained from several existing separation routines including flow cover and integer cover inequalities. The heuristic is based on aggregation of constraints of the original formulation and mixed integer rounding inequalities.

Marchesi, Michele

TI Volatility Clustering in Financial Markets: A Micro-Simulation of Interacting Agents. **AU** Lux, Thomas;

Marchesi, Michele.

TI Scaling and Criticality in a Stochastic Multi-Agent Model of a Financial Market. AU Lux, Thomas; Marchesi, Michele.

TI Testing for Non-Linear Structure in an Artificial Financial Market. AU Chen, Shu-Heng; Lux, Thomas; Marchesi, Michele.

Marimon, Ramon

TI An EMU with Different Transmission Mechanisms. AU Giovannetti, Giorgia; Marimon, Ramon.

Markusen, James R.

PD December 1998. TI Understanding the Home Market Effect and the Gravity Equation: The Role of Differentiating Goods. AU Markusen, James R.; Rose, Andrew K.; Feenstra, Robert C. AA Markusen: University of Colorado. Rose: University of California, Berkeley. Feenstra: University of California, Davis. SR Centre for Economic Policy Research Discussion Paper: 2035; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 40. PR 5 pounds or 8 dollars or 8 euros. JE F12, F13. KW Homogeneous Goods. Gravity Equation. Differentiated Goods. Trade. Reciprocal Dumping.

AB This paper argues that the theoretical foundations for the gravity equation are general, while the empirical performance of the gravity equation is specific to the type of goods examined. Most existing theory for the gravity equation depends on the assumption of differentiated goods. We show that the gravity equation can also be derived from a "reciprocal dumping" model of trade in homogeneous goods. The different theories have different testable implications. Theoretically, the gravity equation should have a lower domestic income elasticity for exports of homogeneous goods than of differentiated goods because of a "home market" effect that depends on barriers to entry. We quantify the home market effect empirically using cross-sectional gravity equations and find that domestic income export elasticities are indeed substantially higher for differentiated goods than for homogeneous goods.

Marnie, Sheila

TI Targeting Social Assistance in a Transition Economy: The Mahallas in Uzbekistan. AU Micklewright, John; Coudouel, Aline; Marnie, Sheila.

Marshall, Katherine

PD March 1998. TI Making Sense of Development Debates. AA World Bank. SR Harvard Institute for International Development, Development Discussion Paper: 629; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. PG 26. PR paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. JE A12, E61, F02, O21, O23. KW Communication. Partnership. Aid. Development Policy. Development Planning.

AB Designing policies and administering programs take place in widely varying settings, or "domains". Linkages are imperfect, at best; and often contain weaknesses and fault points. These weaknesses apply within developing countries, within institutions in the aid community, and within universities. This paper sets out to characterize five such domains: (1) the policy design domain (in which broad visions for growth, social, political, or cultural direction are developed); (2) the macro economic management domain (usually represented by the ministries of finance and economy); (3) the sectoral domain (education, health, agriculture etc.); (4) the issue domain (environment, poverty, private sector, gender etc.); and (5) the community/enterprise domain (NGO's, businesses, local administration, project actors etc.). Varying perspectives are illustrated through the use of fictional characters, half from developing countries, half from the "development professions". The point is that development requires all these different perspectives to operate in parallel fashion rather than in competition.

PD April 1998. TI From War and Resettlement to Peace Development: Some Lessons from Mozambique and UNHCR and World Bank Collaboration. AA World Bank and Harvard University. SR Harvard Institute for International Development, Development Discussion Paper: 633; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. PG 17. PR paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. JE F35, N47, O15, O19. KW Resettlement. Development. Mozambique. UNHCR. World Bank.

AB Mozambique's transition from protracted war to peace and development offers a special example of international collaboration in supporting the war to peace transition, because of its scale and relatively smooth unfolding. The United Nations High Commission for Refugees (UNHCR) provided support both to Mozambican refugees during the conflict, and to the refugees and others who resettled in Mozambique's most affected regions after the war. The World Bank played a central role in supporting Mozambique's development strategy and finance. As UNHCR wound up its Mozambique operations in 1996, it engaged in an evaluation exercise. This paper reviews the UNHCR ex-post evaluation exercise, and draws some lessons for broader international collaboration in post- conflict situations. It also reviews some specific institutional lessons, including some missed opportunities for effective, field collaboration between the UNHCR and the World Bank, weakness in regional dimensions in approaching issues, and the need for early and effective collaboration.

Martin, Philippe

PD February 1999. TI Coordination, Cooperation, Contagion and Currency Crises. AU Martin, Philippe; Loisel, Olivier. AA Martin: The Graduate Institute of International Studies. Loisel: ENSAE. SR Centre for Economic Policy Research Discussion Paper: 2075; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 32. PR 5 dollars or 8 dollars or 8 euros. JE F31, F33, F36, F41, F42. KW Monetary Cooperation. Exchange Rates. Escape Clause. Currency Crises. Trade Spillovers.

AB The authors analyze the effect of trade spillovers and of international coordination on currency crises. To do this, they present a model that builds on two separate literatures: the literature on international monetary cooperation, and the literature on currency crises, or more precisely on the "escape clause" approach of fixed exchange rate systems. They show that the more important trade spillovers are, the more likely

self-fulfilling speculative crises are and the larger the set of multiple equilibria. Coordination decreases the possibility of simultaneous self-fulfilling speculative crises in the region and reduces the set of multiple equilibria. However, regional coordination, even though welfare improving, makes countries more dependent on other countries' fundamentals so that it may induce more contagion: a negative shock in one country of the region increases the possibility of a currency crisis in the region because it reduces the feasibility of coordination.

Mas, A.

PD February 1999. **TI** Normalite Asymptotique de L'Estimateur Empirique de L'Operateur d'Autocorrelation d'Un Processus ARH(1). **AA** CREST and Universite Paris VI. **SR** Document de Travail du CREST: 9911; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 12. **PR** no charge. **JE** C13, C22, C51. **KW** Random Operators. Martingale. Difference Arrays. Weak Convergence.

AB This paper consider the ARH(1) model defined by letting X subscript t equal rho*(X subscript t-1) + epsilon subscript t. Rho is a linear operator on a Hilbert space. X subscript t and epsilon subscript t are Hilbert space valued random variables (the epsilon-subscript-t's are iid). The paper derives a central limit theorem for two different estimators of the autocorrelation operator rho. Both estimators are based on the empirical covariance operators of the process X subscript t.

Maskin, Eric

PD January 1998. **TI** Incentives, Information, and Organizational Form. **AU** Maskin, Eric; Qian, Yingyi; Xu, Chenggang. **AA** Maskin: Harvard University. Qian: Stanford University. Xu: Harvard University and London School of Economics. **SR** Harvard Institute for International Development, Development Discussion Paper: 618; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 28. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D23, D82, L23, M11, P50. **KW** Organizational Form. Incentives. Information. Yardstick Competition. Managers.

AB We model an organization as a network of managers erected on top of a technology (here consisting of a collection of plants). In our framework, the role of a manager is to react to shocks that affect the plants he oversees by choosing an appropriate allocation of tasks for the managers under him. We argue that different organizational forms give rise to different information about managers' performance and therefore differ according to how effective incentives can be in encouraging good performance. In particular, we show that, under certain assumptions, the M-form (multi-divisional form) is likely to provide better incentives than the U-form (unitary form) because it promotes yardstick competition (i.e., relative performance evaluation) more effectively. We conclude by presenting evidence that the assumptions on which this comparison rests are satisfied for Chinese data.

Masson, Paul R.

TI Liability-Creating Versus Non-Liability-Creating Fiscal Stabilization Policies: Ricardian Equivalence, Fiscal Stabilization, and EMU. **AU** Bayoumi, Tamim; Masson, Paul R.

PD October 1998. **TI** Currency Crises, Sunspots and Markov-Switching Regimes. **AU** Masson, Paul R.; Jeanne, Olivier. **AA** Masson: International Monetary Fund. Jeanne: Ecole Nationale des Ponts et Chaussees. **SR** Centre for Economic Policy Research Discussion Paper: 1990; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** F31, F32, F33, F34, F41. **KW** Currency Crises. Speculation. Sunspots. Markov-Switching Regimes. European Monetary Union.

AB This paper investigates the theoretical properties of a class of "second generation" models of currency crises as well as their applicability to empirical work. We show that under some conditions these models give rise to an arbitrarily large number of equilibria, as well as cyclic or chaotic dynamics for the devaluation expectations. We then propose an econometric technique, based on the Markov-switching regimes framework, by which these models can be brought to the data. We illustrate this empirical approach by studying the experience of the French franc between 1987 and 1993, and find that the model performs significantly better when it allows the devaluation expectations to be influenced by sunspots.

Mathauschek, Barbara

TI Teams Take the Better Risks. **AU** Kuon, Bettina; Mathauschek, Barbara; Sadrieh, Abdolkarim.

Mattei, Aurelio

PD September 1998. **TI** Economie Experimentale et Modele Intertemporel du Consommateur. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9813; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 16. **PR** no charge. **JE** C91, D11, D12, D91. **KW** Consumer Theory. Experiments. Revealed Preference. Intertemporal Choice. Intertemporal Substitution.

AB This paper reports the results of an experiment on the intertemporal model of consumer behavior with perfect foresight. A test using the theory of revealed preference shows that a significant number of individuals have an inconsistent behavior. However, the average data are consistent with the behavior of a representative consumer. The estimation of the elasticity of intertemporal substitution shows that a rise in the interest rate has an important effect on consumption. Earlier findings using average cohort data are confirmed.

Matutes, Carmen

TI Golden Cages for Showy Birds: Optimal Switching Costs in Labour Markets. **AU** Caminal, Ramon; Matutes, Carmen; Burguet, Roberto.

Maurel, Mathilde

PD November 1998. **TI** Economic Convergence of the CEEC's with the EU. **AU** Maurel, Mathilde; Boone, Laurence. **AA** Maurel: Universite de Paris I. Boone: OECD. **SR** Centre for Economic Policy Research Discussion Paper: 2018; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E32, F31, F33, F36, F42. **KW** Eastern

Enlargement. Exchange Rates. Economic Convergence. Optimal Currency Area. Economic Integration.
AB This paper tries to assess how costly it would be for the CEEC's to peg their exchange rates to the Euro. We use three types of criteria: institutional (the Maastricht criteria); some measure of real convergence; and the Optimal Currency Area criteria. The institutional criteria seem to be an important impediment to an 'immediate' accession. There is also a lot more to do in terms of real convergence. Finally, the correlations of industrial production and unemployment cycles in the CEEC's and the EU, or other reference countries, such as Germany, Greece, France and Portugal point towards a deeper integration of the CEEC's with Germany than with the EU. This reflects the old ties Germany had and still has with Eastern countries and the likely key role Germany is going to play in the process of EU enlargement to Eastern Europe.

Maurin, Eric

TI Formation Continue et Carrieres Salariales: Une Evaluation sur Donnees Individuelles. AU Fougere, D.; Goux, Dominique; Maurin, Eric.

TI Fixed-Term Contracts and the Dynamics of Labour Demand. AU Goux, Dominique; Maurin, Eric; Pauchet, Mariane.

McCluskey, Jill

TI Food Import Demand in the Czech Republic. AU Janda, Karel; Rausser, Gordon C.; McCluskey, Jill.

McMillan, John

PD December 1998. TI Inter-Firm Relationships and Informal Credit in Vietnam. AU McMillan, John; Woodruff, Christopher. AA University of California, San Diego. SR Centre for Economic Policy Research Discussion Paper: 2036; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 48. PR 5 pounds or 8 dollars or 8 euros. JE D23, K12, L14, P31. KW Trade Credit. Networks. Vietnam. Contracts.
AB Trading relations in Vietnam's emerging private sector are shaped by two market frictions: the difficulty of locating trading partners and the absence of legal enforcement of contracts. Examining relational contracting, we find that a firm trusts its customer enough to offer credit when the customer faces high costs of finding an alternative supplier. A longer duration of trading relationship is associated with larger credit, as is prior information gathering. Customers identified through business networks receive more credit. These network effects are enduring, suggesting that networks are used to sanction defaulting customers.

Mecagni, Mauro

PD April 1999. TI The Egyptian Stock Market: Efficiency Tests and Volatility Effects. AU Mecagni, Mauro; Sourial, Maged Shawky. AA International Monetary Fund. SR International Monetary Fund Working Paper: 99/48; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 26. PR not available. JE C12, C52, G12, G14, G18. KW Stock Markets. GARCH Models. Asset Pricing. Market Efficiency. Volatility.
AB The paper examines the behavior of stock returns in the Egyptian stock exchange, the efficiency of the stock market in pricing securities, and the relationship between returns and conditional volatility. GARCH(p,q)-M models estimated for the four best known daily indices indicate significant departures from the efficient market hypothesis; the tendency for returns to exhibit volatility clustering; and a significant positive link between risk and returns, which was significantly affected during the market downturn that followed the introduction of circuit breakers in the form of symmetric price limits on individual shares.

Meghir, Costas

TI Wages, Experience and Seniority. AU Dustmann, Christian; Meghir, Costas.

Melitz, Jacques

PD January 1999. TI English-Language Dominance, Literature and Welfare. AA INSEE. SR Centre for Economic Policy Research Discussion Paper: 2055; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 48. PR 5 dollars or 8 dollars or 8 euros. JE A12, D63, E10, F15, L82. KW Language. Welfare. Literature. Translations. Economic Integration.
AB The tendency of a single world market to privilege the translation of English fiction and poetry into other languages for reading or listening enjoyment may damage the production of world literature and in this respect make us all worse off. In order to develop this thesis, the article begins with an economic model of the market for imaginative works in which translations are systematically concentrated on writings in the original language with the largest share in world sales. The model is then shown to agree with the facts. Next, it is argued that high concentration of translations on works coming from one particular language hurts the production of literature directly, because variety of languages of origin is enriching as such, and indirectly, because the concentration damages the incentives of those who do not write in the leading language to invest in their own talents.

Mendelson, Haim

TI Number of Shareholders and Stock Prices: Evidence from Japan. AU Amihud, Yakov; Mendelson, Haim; Uno, Jun.

Mesnard, Alice

TI Altruism and International Labour Migration. AU Gaumont, Damien; Mesnard, Alice.

Mesquita, Mario

TI Long-Run Exchange Rate Dynamics: A Real Data Study. AU Habermeier, Karl F.; Mesquita, Mario.

Mester, Loretta J.

TI What Explains the Dramatic Changes in Cost and Profit Performance of the U.S. Banking Industry? AU Berger, Allen N.; Mester, Loretta J.

Metcalf, David

PD March 1999. TI The British National Minimum Wage. AA London School of Economics. SR London School of Economics, Centre for Economic Performance Discussion Paper: 419; Centre for Economic Performance, London School of Economics and Political Science, Houghton

Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 25. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** J31, J38. **KW** Minimum Wage. Great Britain. Young Workers.

AB This paper outlines the history of minimum wage regulation in Great Britain culminating in 1997 with the establishment of the Low Pay Commission (LPC) and the introduction of the national minimum wage (NMW) this year. The main issues the LPC considered were the definition of the NMW, the rate itself and what to do about younger workers. The LPC took written and oral evidence and held over 200 meetings around the United Kingdom. This process was vital in achieving unanimity around a NMW (3.60 pounds from April 1999 for those aged 22+) acceptable to the government. Comparative international evidence on coverage and cost was also important in coming to conclusions, and the British NMW is towards the middle of the range of coverage among OECD countries. Although there is general agreement that minimum wage systems reduce wage inequality, their impact on the distribution of household income is more controversial. Evidence presented suggests that NMW may have a more egalitarian impact on household incomes than is sometimes asserted. Responses to the report were generally favorable: parliamentary regulations are needed to translate the recommendations into law; the NMW has to be enforced and evaluated.

Michel, Philippe

PD April 1998. **TI** Economic Integration and Growth Under Intergenerational Financing of Human Capital Formation. **AU** Michel, Philippe; Vidal, Jean-Pierre. **AA** Michel: University of Aix-Marseille II. Vidal: University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9809; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 12. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D64, D91, F15, J24. **KW** Human Capital. Economic Integration. Overlapping Generations. Cross-Border Effects.

AB This paper examines the pattern of economic integration and endogenous growth in a two-country overlapping generations world in which the formation of human capital is driven by intergenerational paternalistic altruism. It explores the influence of cross-borders external effects in human capital on growth. Interestingly, world integration can enhance (reduce) long-run growth in both countries if cross-borders external effects on human capital are strong enough (too weak).

PD June 1998. **TI** Fiscal Policy when Individuals Differ Regarding to Altruism and Labor Supply. **AU** Michel, Philippe; Pestieau, Pierre. **AA** Michel: University of Marseille. Pestieau: CREPP, Unviersite de Liege, Universite Catholique de Louvain and Delta. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9840; 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** D64, H22, H23, J22. **KW** Ricardian Equivalence. Altruism. Tax Incidence. Redistribution. Labor Supply.

AB This paper studies the incidence of tax-transfer policy in a growth model wherein individuals differ according to their level of intergenerational altruism and have an endogenous labor supply. The main result is that public debt is neutral at the macro level but redistributes resources from non altruists to altruists. Capital income taxation can hurt the nonaltruists who do not have any wealth more than the altruists who own all of it. Whether or not the altruists supply a positive amount of labor makes a big difference as to the incidence of alternative tax transfer policies.

Michie, Jonathan

TI Markets, Competition and Innovation. **AU** Kitson, Michael; Michie, Jonathan.

Micklewright, John

PD January 1999. **TI** Living Standards and Incentives in Transition: The Implications of Unemployment Insurance Exhaustion in Hungary. **AU** Micklewright, John; Nagy, Gyula. **AA** Micklewright: European University Institute. Nagy: Budapest University of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 2061; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 dollars or 8 dollars or 8 euros. **JE** I38, J64, J65. **KW** Living Standards. Incentives. Hungary. Unemployment Insurance. Social Assistance.

AB The single most likely way to leave the unemployment insurance (UI) register in Hungary is not by getting a job but by exhausting entitlement to benefit. Two questions follow. First, what are the implications of the cessation of UI for living standards? Second, does UI exhaustion have much effect on the probability of getting a job through increasing incentives to work? We investigate these issues with a survey of persons exhausting entitlement to UI in Summer 1995, paying special attention to the household circumstances of the unemployed and to the probabilities of claiming and being awarded means-tested assistance benefit.

PD January 1999. **TI** The Informational Value of Job Search Data and the Dynamics of Search Behaviour: Evidence from Hungary. **AU** Micklewright, John; Nagy, Gyula. **AA** Micklewright: European University Institute. Nagy: Budapest University of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 2063; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 28. **PR** 5 dollars or 8 dollars or 8 euros. **JE** J21, J63, J64. **KW** Search. Labor Force Status. Unemployment. Labor Markets. Hungary.

AB Labor market analysis places much emphasis on the concept of search. But there is insufficient empirical information on (a) the relationship between reported search and job-finding and (b) how search behavior changes over a spell without work. We investigate these issues using a sample constructed from Hungarian labor force survey panel data of the flow from jobs to the state of "joblessness". The results on job exits call into question aspects of the standard international classification of "unemployment" and "out of the labor force". Transitions during joblessness in and out of search and the various categories of non- search are found to be only modest.

PD January 1999. **TI** Targeting Social Assistance in a Transition Economy: The Mahallas in Uzbekistan. **AU** Micklewright, John; Coudouel, Aline; Marnie, Sheila. **AA** Micklewright and Marnie: European University Institute.

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Coudouel: UNICEF. **SR** Centre for Economic Policy Research Discussion Paper: 2064; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 dollars or 8 dollars or 8 euros. **JE** H53, I32, I38, O15, P35. **KW** Social Assistance. Welfare Programs. Transition. Uzbekistan. Targeting.

AB Falling output and living standards have pushed countries in transition from the socialist system to reconsider how best to target public resources on those in need. The paper investigates the workings of a new social assistance benefit in Uzbekistan, the largest of the former Soviet Central Asian republics, administered by community organizations, the Mahallas. Data are used from a 1995 household survey to assess the scheme's success in targeting the most vulnerable households, using a variety of indicators including income, durable goods ownership, agricultural assets, employment status, and the anthropometric status of children. The separate probabilities of knowledge of the scheme, of application for benefit, and of award are modeled.

Mihailov, Alexander

TI Aspects Economiques du Droit de la Concurrence Applique aux Activites Bancaires. **AU** Lambelet, Jean-Christian; Mihailov, Alexander.

Milesi-Ferretti, Gian Maria

TI Growth Effects of Income and Consumption Taxes. **AU** Roubini, Nouriel; Milesi-Ferretti, Gian Maria.

Miller, Jeffrey B.

PD December 1998. **TI** The First Wave of Privatization in Bulgaria and its Immediate Aftermath. **AU** Miller, Jeffrey B.; Petranov, Stefan. **AA** Miller: University of Delaware. Petranov: Sofia University and Bulgarian Consulting Group. **SR** University of Delaware, Department of Economics Working Paper: 99/01; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 31. **PR** no charge. **JE** K10, L33, P27, P31. **KW** Privatization. Bulgaria. Investment Funds. Capital Market.

AB In January 1995 a Socialist government came to power in Bulgaria and initiated a mass privatization program. In the first wave of this program, which was completed in June 1997, about one-fourth of Bulgaria's state-owned enterprises were partially privatized through the program. Patterned after the Czech mass privatization program, an important outcome of the Bulgarian program is that investment funds have become important agents in the private sector of the economy. It is too early to determine whether enterprise restructuring will now occur, but initial market signals suggest that Bulgaria may soon suffer from many problems that now confront the Czech economy unless corporate laws supporting ownership rights and better capital market regulations are enacted.

PD September 1999. **TI** The Currency Board in Bulgaria: The First Two Years. **AA** University of Delaware. **SR** University of Delaware, Department of Economics Working Paper: 99/07; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 15. **PR** no charge. **JE** E52, F33, F34, P21. **KW** Currency Board. Financial Crises. Inflation. Foreign Debt.

AB After a severe financial crisis in 1996 and early 1997, Bulgaria established a currency board. While the currency board has been a great success in bringing inflation from hyperinflationary levels to very low levels in 1998 and early 1999, it has only been in place for two years. In this paper we take a longer-term perspective and assess not only the board's immediate impact, but also its prospects for the future. Two issues are of special concern: (1) Bulgaria's large foreign debt and (2) whether the automatic adjustment mechanisms that maintain balance-of- payments equilibrium under a currency board arrangement will be effective in sustaining the currency board in the long-run.

Miniaci, Raffaele

TI Changes in Consumption Behaviour: Italy in the Early 1990's. **AU** Weber, Guglielmo; Grant, Charles; Miniaci, Raffaele.

Missale, Alessandro

TI The Currency Denomination of Public Debt and the Choice of the Monetary Regime. **AU** Falcetti, Elisabetta; Missale, Alessandro.

Mitchell, Richard

PD June 1998. **TI** Juridification and Labour Law: A Legal Response to the Flexibility Debate in Australia. **AA** University of Melbourne, Australia. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 93; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 23. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** K31, J30, J52, J53, J58. **KW** Labor Law. Australia. Arbitration. Employment.

AB The paper examines the proposition that the introduction of the new Workplace Relations Act 1996 has brought about a "dejuridification" of Australian labor law. Notwithstanding the rigidities and inefficiencies of the traditional award-based Australian system of compulsory arbitration, the new Act has arguably introduced greater complexity, not simplicity, to the regulatory framework. This is illustrated by detailed reference to the process of individualization of employment under the Act, through (individual) Australian Workplace Agreements. The Act is unlikely to cause noticeable change in bargaining processes.

Moore, Barry

TI Collective Learning Processes and Inter-Firm Networking in Innovative High-Technology Regions. **AU** Keeble, David; Lawson, Clive; Lawton Smith, Helen; Moore, Barry; Wilkinson, S. Frank.

TI Collective Learning Processes and Inter-Firm Networking in Innovative High-Technology Regions. **AU** Keeble, David; Lawson, Clive; Lawton Smith, Helen; Moore, Barry; Wilkinson, S. Frank.

Morduch, Jonathan

PD January 1998. **TI** Between the Market and State: Can Informal Insurance Patch the Safety Net? **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 621; Harvard

Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 23. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** G20, H70, I32, I38, O17. **KW** Informal Insurance. Safety Nets. Risk. Poverty. Development.

AB Most households in low-income countries deal with adverse economic events through informal insurance, arrangements arising between individuals and communities on a personalized basis. Examples include reciprocal need-based gift exchange, trading physical assets, and the use of risk-reducing production techniques. These mechanisms can be highly effective in the right circumstances, but a substantial number of households, especially the most poor, appear ill-equipped to handle even small-scale, localized risks. Moreover, informal mechanisms are often inefficient and can retard economic growth and mobility. Thus, even where informal insurance is well-developed, displacing informal mechanisms may yield positive social outcomes. A promising policy response is promotion of market-based institutions like simple savings plans that "span" both failed insurance markets and failed informal insurance mechanisms but which themselves are not as prone to failure.

PD February 1998. **TI** The Microfinance Schism. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 626; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 13. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D63, G20, I38, O16, O17. **KW** Microfinance. Poverty Alleviation. Credit Markets. Savings. Subsidies.

AB Leading advocates for microfinance have put forward a "win-win" proposition: microfinance institutions that follow good banking principles will also be those that alleviate the most poverty. A key tenet is that poor households demand access to credit, not cheap credit. This vision has been translated into "best practices" that have been circulated widely. The argument falls apart, however, on closer inspection. It rests on misinterpretations of evidence and faulty extrapolations of logic. While petty traders and a few others with high- margin, quick turnaround businesses can pay high real interest rates, most poor households cannot. Contrary to common assertions, moderately- subsidized credit can be well-targeted, delivered efficiently, and can be compatible with savings mobilization. Recognizing the limits to the "win-win" proposition opens up consideration of the costs and benefits to subsidization. It also provides a basis for constructive dialogue between microfinance advocates that privilege financial development and those that privilege social impacts.

TI Sibling Rivalry. **AU** Garg, Ashish; Morduch, Jonathan.

PD May 1998. **TI** Rethinking Inequality Decomposition, with Evidence from Rural China. **AU** Morduch, Jonathan; Sicular, Terry. **AA** Morduch: Harvard University. Sicular: University of Western Ontario. **SR** Harvard Institute for International Development, Development Discussion Paper: 636; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 29. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D31, D33, D63, O15, P24. **KW** Factor Income Distribution. Personal Income. Wealth Distribution. National Income. Inequality Decomposition.

AB The authors introduce a new, integrated regression-based approach for decomposing inequality indices with household-level data, and examine the strengths and weaknesses of inequality decompositions by income source as they are commonly interpreted. The approach uses estimated income flows from variables in linear income equations to decompose aggregate inequality indices. The integrated approach provides an efficient and flexible way to quantify the roles of variables like education, age, infrastructure, and social status in a multivariate context. These tools are applied to a new data set with information on incomes in Zouping County in Shandong Province, China. The evidence from China illustrates the sharp differences that can result when using decomposition methods with varying properties, and it demonstrates advantages of the proposed, integrated method. The authors trace the differences to how the decomposition methodologies treat equally-distributed sources of income. The empirical results show the importance that spatial segmentations play in increasing inequality.

PD June 1998. **TI** Politics, Growth, and Inequality in Rural China: Does it Pay to Join the Party? **AU** Morduch, Jonathan; Sicular, Terry. **AA** Morduch: Harvard University. Sicular: University of Western Ontario. **SR** Harvard Institute for International Development, Development Discussion Paper: 640; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 32. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D72, J41, O12, P21, P26. **KW** Transition. China. Political Economy. Inequality. Rural Reform.

AB Economic reform is difficult to carry out because it often undercuts the status and economic advantage of the rank-and-file officials to whom authorities must turn to implement market-based changes. Drawing on new longitudinal data collected between 1991 and 1994 in a representative rural county in Northern China, the authors demonstrate that local officials have not in fact lost out. Their incomes have risen and political rents have increased during a period when reforms accelerated. The data suggest that political rents have stemmed largely from control over and access to new wage jobs and collective land that allows high- value agricultural production. The benefits to joining the Communist Party are largely indirect and occur through increasing the probability of becoming an official with such access. This access functions as an implicit performance-based incentive contract that ties the household incomes of officials to increases in consumer demand and the provision of public goods.

Moretti, Enrico

TI An Information Based Sample-Selection Estimation Model of Agricultural Workers' Choice Between Piece-Rate and Hourly Work. **AU** Golan, Amos; Moretti, Enrico; Perloff, Jeffrey M.

Morris, Stephen

PD November 1998. **TI** A Theory of the Onset of Currency Attacks. **AU** Morris, Stephen; Shin, Hyun Song. **AA** Morris: University of Pennsylvania. Shin: Nuffield College. **SR** Centre for Economic Policy Research Discussion Paper: 2025; Centre for Economic Policy Research,

90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D82, E44, F31, F32, F36. **KW** Currency Crises. Common Knowledge. Market Confidence. Foreign Exchange. Financial Markets.

AB The swiftness and devastating impact of recent financial crises have taken many market participants by surprise and pose challenges for economists seeking a theory of the onset of a crisis. We propose such a theory based on two features. The actions of diverse economic actors which undermine the currency are mutually reinforcing, while the fragmented nature of the media creates small disparities in their information. In such circumstances, the beliefs of market participants can be tracked in the same way as the economic fundamentals and an attack is triggered when the economic fundamentals deteriorate sufficiently to fall below the minimum level of market confidence necessary to support the currency. We give a characterization of such a minimum level of confidence.

Mortensen, Dale T.

TI New Developments in Models of Search in the Labour Market. **AU** Pissarides, Christopher A.; Mortensen, Dale T.

PD April 1999. **TI** Job Reallocation, Employment Fluctuations and Unemployment. **AU** Mortensen, Dale T.; Pissarides, Christopher A. **AA** Mortensen: Northwestern University. Pissarides: London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 421; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 73. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** E32, J41, J63, J64, J68. **KW** Unemployment. Job Reallocation. Real Business Cycles. Technological Progress.

AB This paper reviews the model of search and matching equilibrium and derives the properties of employment and unemployment equilibrium. It applies the model to the explanation of employment fluctuations and differences in unemployment rates in industrialized countries. The search and matching model is built on assumptions of a time-consuming matching technology that determines the rate of job creation given the unmatched number of workers and jobs; and on a stochastic arrival of idiosyncratic shocks that determines the rate of job destruction given the wage contract between matched firms and workers. The outcome is a model for the flow of new jobs and unemployed workers from inactivity to production (the "job creation" flow) and one for the flow of workers from employment to unemployment and of jobs out of the market (the "job destruction" flow). In steady-state equilibrium, the two flows are equal. The model explains well the employment fluctuations observed in the U.S. economy, within the context of a real business cycle model. The large differences in unemployment rates observed in industrialized countries can be attributed largely to differences in employment protection legislation and the generosity of the welfare. The paper also surveys other reasons for observed levels in unemployment.

Mouchart, Michel

PD September 1998. **TI** Bayesian Specification and Identification of a Class of Mixture Models. **AU** Mouchart, Michel; San Martin, Ernesto. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9850; 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** 11. **PR** $100 per year. **JE** C11, C40. **KW** Bayesian Identification. Incidental Parameters. Hierarchical Models. Predictive Sufficiency. Mixture Models.

AB This note argues that a Bayesian framework is almost inescapable when specifying statistical models of the LISREL type, i.e. models involving not only latent and manifest variables but also incidental parameters. Indeed, a careful specification, making every hypothesis explicit and interpretable both contextually and statistically, requires a fully probabilistic framework, which is one of the most attractive features of the Bayesian approach. Such an environment allows one to develop a complete analysis of identification distinguishing five levels of identification problems. From this analysis the paper proceeds, on one hand, by giving some sufficient conditions for the identification of the statistical model, and, on the other hand, by studying the identification problem in the predictive model.

Muellbauer, John

PD January 1999. **TI** Asymmetries in Housing and Financial Market Institutions and EMU. **AU** Muellbauer, John; Maclennan, Duncan; Stephens, Mark. **AA** Muellbauer: Nuffield College. Maclennan and Stephens: University of Glasgow. **SR** Centre for Economic Policy Research Discussion Paper: 2062; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 52. **PR** 5 dollars or 8 dollars or 8 euros. **JE** E44, E52, E58, E63, R23. **KW** Monetary Transmission. European Monetary Union. Financial Markets. Housing Markets. Asymmetries.

AB Despite convergence pressures, differences in housing and financial market institutions across the 15 member states of the European Union are still enormous. This paper argues that they have profound effects on the responsiveness of output and inflation in the different countries to changes in short-term interest rates, as well as to asset market shocks of external origin. The economic reasoning behind this claim is set out and the institutional differences are described. The paper assesses the sometimes conflicting empirical evidence on this issue. Barriers to convergence and implications for labor market flexibility are discussed. The UK, Ireland, Finland and Sweden tend to cluster at one extreme of the relevant institutional characteristics. The paper concludes with a set of proposals for institutional reforms which would significantly reduce the tensions within EMU and the potential for instability in these economies entailed by EMU membership.

Mulder, Christian

TI Political Instability and Economic Vulnerability. **AU** Bussiere, Matthieu; Mulder, Christian.

Mulligan, James G.

TI Peak-Load Pricing of Ski-Lift Tickets in the United States. **AU** Llinares, Emmanuel; Mulligan, James G.

TI Technological Change of Service Speed. **AU** Llinares, Emmanuel; Mulligan, James G.

Mullineux, Andy

TI Incorporating Risky Assets in Divisia Monetary Aggregates. **AU** Drake, Leigh; Mullineux, Andy; Agung, Juda.

Munoz-Pina, Carlos

TI Social and Environmental Consequences of the Mexican Reforms: Common Pool Resources in the Ejido Sector. **AU** Key, Nigel; Munoz-Pina, Carlos; de Janvry, Alain; Sadoulet, Elisabeth.

Nachum, Lilach

PD September 1998. **TI** The National Origin of the Ownership Advantage of Firms. **AU** Nachum, Lilach; Rolle, Jean Daniel. **AA** Nachum: University of Cambridge. Rolle: Geneva University, Switzerland. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 99; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 30. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** F23, L20, L84, M37. **KW** Competitive Advantage. Multinational Firms. Advertising Agencies. Foreign Direct Investment. Ownership.

AB This study examines the extent to which home country ownership advantages of selected larger US, UK and French advertising firms appear to influence their competitive position in international markets. Empirical analysis of original data from these companies suggests that the impact of home country advantages is critical, but provides only part of the explanation for the nature of the ownership advantages which advertising agencies develop. Some of these advantages are related to the attributes of individual advertising agencies and they vary in line with their unique characteristics as well as in response to the characteristics of their home countries.

PD September 1998. **TI** UK FDI and the Comparative Advantage of the UK. **AU** Nachum, Lilach; Dunning, John; Jones, Geferri. **AA** Nachum: University of Cambridge. Dunning and Jones: Reading University. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 103; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 18. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** F21, F23, F41. **KW** Foreign Direct Investment. Multinational Firms. Comparative Advantage. Industrial Structure.

AB This paper investigates the link between the industrial structure of UK outward foreign direct investment (FDI) and sectoral variations in the comparative advantage of the UK, by comparing their dynamic evolution over the last four decades. The research reveals that the largest shares of UK outward FDI are concentrated in sectors in which the UK possesses a comparative disadvantage. Furthermore, the sectors in which the UK possesses comparative advantages have characteristics different from those in which UK outward FDI is concentrated. This suggests that the differences between the industrial structure of UK outward FDI and UK comparative advantages are a matter of kind rather than of degree. Over time, UK outward FDI appears to have become more sectorally similar to UK comparative advantage indicators, a change which seems to be related to changing motivations by UK MNEs in relation to overseas investment.

Nadal-De Simone, Francisco

PD April 1999. **TI** A Review of Capital Account Restrictions in Chile in the 1990's. **AU** Nadal-De Simone, Francisco; Sorsa, Piritta. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/52; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 49. **PR** not available. **JE** E52, E58, F21, F32. **KW** Capital Controls. Interest Rates. Exchange Rates. Monetary Policy. Chile.

AB This paper examines the Chilean experience with capital controls and reviews studies of controls on capital inflows. Controls on Chile's inflows had only a temporary impact of reducing specific inflows because they were affected by avoidance. There is some evidence that controls increased interest rates and altered the composition of capital inflows. The studies, however, contain important methodological problems in measuring flows and significant econometric weaknesses, which cast doubt on the robustness of the estimates. No study has assessed the political economy of the controls. It seems premature to view the Chilean experience as supportive of controls on capital inflows.

Nagel, Rosemarie

PD July 1997. **TI** An Experimental Study of Adaptive Behavior in an Oligopolistic Market Game. **AU** Nagel, Rosemarie; Vriend, Nicolaas J. **AA** University of Barcelona. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/408; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 36. **PR** no charge. **JE** C72, C91, D82, D83, L13. **KW** Market Game. Oligopoly. Adaptive Behavior. Learning. Experiments.

AB We consider an oligopolistic market game, in which the players are competing firms in the same market of a homogenous consumption good. The consumer side is represented by a fixed demand function. The firms decide how much to produce of a perishable consumption good, and they decide upon a number of information signals to be sent into the population in order to attract customers. Due to the minimal information provided, the players do not have a well-specified model of their environment. Our main objective is to characterize the adaptive behavior of the players in such a situation.

Nagy, Gyula

TI Living Standards and Incentives in Transition: The Implications of Unemployment Insurance Exhaustion in Hungary. **AU** Micklewright, John; Nagy, Gyula.

TI The Informational Value of Job Search Data and the Dynamics of Search Behaviour: Evidence from Hungary. **AU** Micklewright, John; Nagy, Gyula.

Nandeibam, Shasikanta

PD March 1998. **TI** The Structure of Strongly Monotonic Probabilistic Voting Procedures. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/07; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 12. **PR** 2 pounds ($4); no charge to academics. **JE** D71, D72. **KW** Strong

Monotonicity. Regularity Conditions. Probabilistic Voting. Random Dictatorship.

AB Pattanaik and Peleg (Econometrica 54 (1986), 909-921) showed that the power structure under a probabilistic voting procedure which satisfies regularity, ex-post Pareto optimality and independence of irrelevant alternatives is almost completely characterized by random dictatorship. Their characterization is not complete because it requires some additional conditions. We propose a new probabilistic monotonicity axiom called strong monotonicity and show that, if the probabilistic voting procedure is required to satisfy this new axiom along with their three axioms, then the distribution of coalitional power under it is completely characterized by random dictatorship.

PD March 1998. **TI** Efficiency in Teams with Sub-Teams. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/08; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 21. **PR** 2 pounds ($4); no charge to academics. **JE** C70, D23, D24, D71. **KW** Team Models. Intermediate Outcomes. Sustaining Efficiency. Sharing Rules.

AB In contrast to traditional team models with only the final output observable, this paper considers teams in which the final output is a function of observable intermediate variables that are functions of the actions of the team members. We give a necessary and sufficient condition for sustaining efficiency, which must be satisfied by all possible deviations from efficiency that can be caused by each team member unilaterally. As a consequence of this characterization, we are able to show that in a broad class of problems the intermediate variables may be sufficiently informative to allow sharing rules that sustain efficiency.

PD March 1998. **TI** Bargaining in Partnerships. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/09; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 21. **PR** 2 pounds ($4); no charge to academics. **JE** C72, D23, D24, D82. **KW** Output Sharing. Second Best. Bargaining Process. Noncooperative Game.

AB We model the problem of output sharing in a team of two individuals as a two stage game. The two individuals engage in an alternating offer bargaining process in the first stage to decide how to share the final output and then play a noncooperative game in the second stage team production process. We show that in subgame perfect equilibrium the two individuals can agree on some simple linear or piecewise linear output sharing rules. We also show that the subgame perfect equilibrium payoff pair is unique.

Narain, Urvashi

PD June 1998. **TI** Irreversibility, Uncertainty, and Catastrophic Global Warming. **AU** Narain, Urvashi; Fisher, Anthony C. **AA** University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 843; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 33. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** D81, D83, D92, Q25. **KW** Uncertainty. Risk. Global Warming. Greenhouse Gases. Decision-Making.

AB This paper characterizes the optimal rate of emission of greenhouse gases when investment in abatement capital is irreversible, some part of the stock of greenhouse gases is non-degradable and there is a possibility of catastrophic damages in the future. The option of investing in abatement capital tomorrow -- when learning resolves uncertainty about the extent and possibility of catastrophic damages due to greenhouse gases -- is weighed against the option of reducing today the stock of greenhouse gases. Given this trade-off, the paper asks what should be the optimal rate of emission of greenhouse gases. This paper fills some gaps in the literature by developing a stochastic dynamic programming model that allows for irreversible capital, irreversible stock and avoidable catastrophic damages, and yields analytical results. Simulations based on the analytical model introduce learning about future damages into the current-period, and yield results directly comparable to those of the earlier studies.

Neary, J. Peter

PD November 1998. **TI** Beat 'Em or Join 'Em?: Export Subsidies versus International Research Joint Ventures in Oligopolistic Markets. **AU** Neary, J. Peter; O'Sullivan, Paul. **AA** Neary: University College Dublin. O'Sullivan: National University of Ireland, St. Anthony's College. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 408; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 27. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** C73, F12, L13, O32. **KW** Research and Development. Joint Ventures. Strategic Trade. Commitment.

AB This paper compares adversarial with cooperative industrial and trade policies in a dynamic oligopoly game in which a home and foreign firm compete in research and development and output and, because of spillovers, each firm benefits from the other's research and development. When the government can commit to an export subsidy, such a policy raises welfare relative to cooperation, except when research and development is highly effective and spillovers are near-complete. Without commitment, however, subsidization may yield welfare levels much lower than cooperation and lower even than free trade, though qualifications to the dangers from no commitment are noted.

PD November 1998. **TI** Strategic Trade and Industrial Policy Towards Dynamic Oligopolies. **AU** Neary, J. Peter; Leahy, Dermot. **AA** University College Dublin. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 409; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 38. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** C73, F13, L13, O32. **KW** Learning-by-Doing. Research and Development. Strategic Trade. Commitment.

AB In this paper we characterize optimal trade and industrial policy in dynamic oligopolistic markets. If governments can commit to future policies, optimal first-period intervention should diverge from the profit-shifting benchmark to an extent

which exactly offsets the strategic behavior implied by Fudenberg and Tirole's "fat cats and top dogs" taxonomy of business strategies. Without governmental commitment, there is an additional basis for intervention, the direction of which depends on the strategic substitutability between future policy and current actions. We consider a variety of applications (to research and development spillovers, consumer switching costs, etc.) and extensions to second-best, revenue-constrained and entry-promotion policies.

TI The Mercantilist Index of Trade Policy. **AU** Anderson, James E.; Neary, J. Peter.

TI The Mercantilist Index of Trade Policy. **AU** Anderson, James E.; Neary, J. Peter.

Nelson, William R.

TI Bank Risk Rating of Business Loans. **AU** English, William B.; Nelson, William R.

PD January 1999. **TI** Evidence of Excess Returns on Firms That Issue or Repurchase Equity. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/06; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 42. **PR** no charge. **JE** G14, G32, G35. **KW** Equity Issuance. Equity Repurchase. Excess Returns. Stock Returns. Corporate Finance.

AB Between 1927 and 1992, portfolios of the stock of the 5 percent of firms with the lowest annual growth in shares outstanding (generally a reduction in the change in shares) posted returns over the subsequent five years that averaged 12 percentage points more per year than the returns to portfolios of the 5 percent of firms with the highest annual growth in shares. The difference in returns is greater in more recent years and was positive for all of the final 33 years of the sample. The difference is apparent for portfolios of firms of all sizes and industries. The market beta of the returns to the portfolios of repurchasers exceeds only slightly that of the returns to the portfolios of issuers, insufficiently to account for more than a small part of the difference in average returns.

PD January 1999. **TI** Why Does the Change in Shares Predict Stock Returns? **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/07; 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** G14, G32, G35. **KW** Equity Issuance. Equity Repurchase. Excess Returns. Stock Returns. Corporate Finance.

AB The stock of firms that issue equity has, on average, performed poorly in subsequent years, while the stock of firms that repurchase has typically done well. One explanation for this pattern is that firms are exploiting their superior knowledge about the value of their stock by buying it when it is undervalued and selling it when it is overvalued. This paper presents supporting evidence for this explanation of the excess returns: The change in shares outstanding is positively correlated with proxies for the deviation of current stock price from fundamental value; the excess returns following the change in shares remain significant after controlling for these proxies; and the changes in shares that can be explained by the proxies predict stock returns more powerfully than changes in shares explained by other reasons.

PD January 1999. **TI** The Aggregate Change in Shares and the Level of Stock Prices. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/08; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 44. **PR** no charge. **JE** G14, G32, G35. **KW** Equity Issuance. Equity Repurchase. Dividend-Ratio Model. Earnings- Price Ratio. Corporate Finance.

AB The average change in shares of equity is negatively correlated with estimates of the equity premium calculated using the dividend-ratio model of Campbell and Shiller, as well as with a variant of the model written in terms of the earnings-price ratio. This correlation is consistent with corporations issuing equity when it is a relatively inexpensive source of finance and repurchasing equity when it is a relatively good investment. However, when the retirement of shares resulting from mergers are included, the average change in shares is no longer significantly correlated with the equity premium.

Neumann, Manfred J. M.

TI A Non-normative Theory of Inflation and Central Bank Independence. **AU** Herrendorf, Berthold; Neumann, Manfred J. M.

Neven, Damien J.

PD April 1998. **TI** Union Power and Product Market Competition: Evidence from the Airline Industry. **AU** Neven, Damien J.; Roller, Lars-Hendrik; Zhang, Zhentang. **AA** Neven: University of Lausanne. Roller: Wissenschaftzentrum Berlin, Humboldt University and INSEAD. Zhang: Wissenschaftszentrum Berlin. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9810; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 23. **PR** no charge. **JE** D43, J51, L13, L40, L93. **KW** Efficiency. Union Power. Market Power. Rent Sharing. Airline Industry.

AB In this paper we specify and estimate a structural model which links product market competition and union power. The model has a two-stage setting in which wages are determined through bargaining between management and unions in the first stage, with a price-setting market game to follow in the second stage. Using data for eight European airlines from 1976-1994, we provide evidence on price-cost margins and the measurement of market power in a model of rent sharing. In particular, we find that the welfare effects of rent sharing work mainly through reducing firms' profits, rather than consumer surplus. As a consequence the static impact of unions is more on equity rather than efficiency.

Nguyen, Jean-Marc

TI The Multivariate Threshold Model: An Alternative to Detect Breaks and Hidden Cycles on Real Data. **AU** Guegan, Dominique.; Nguyen, Jean-Marc.

Nickell, Stephen

PD September 1998. **TI** Labour Market Institutions and Economic Performance. **AU** Nickell, Stephen; Layard, Richard. **AA** Nickell: London School of Economics. Layard: University of Oxford. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 407; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 80. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** I38, J38, J58, J64. **KW** Labor Market. Institutions. Unions. Social Security.

AB Barely a day goes by without some expert telling us how the continental European economies are about to disintegrate unless their labor markets become more flexible. Basically, we are told, Europe has the wrong sort of labor market institutions for the modern global economy. These outdated institutions both raise unemployment and lower growth rates. The truth of propositions such as these depends on which labor market institutions really are bad for unemployment and growth, and which are not. Our purpose in this paper is to set out what we know about this question. Our conclusions indicate that the labor market institutions on which policy should be focused are unions and social security systems. Encouraging product market competition is a key policy to eliminate the negative effects of unions. For social security the key policies are benefit reform linked to active labor market policies to move people from welfare to work. By comparison, time spent worrying about strict labor market regulations, employment protection and minimum wages is probably time largely wasted.

Nielsen, Jorgen Aase

PD November 1998. **TI** Asian Exchange Rate Options under Stochastic Interest Rates: Pricing as a Sum of Delayed Payment Options. **AU** Nielsen, Jorgen Aase.; Sandmann, Klaus. **AA** Nielsen: University of Aarhus. Sandmann: University of Mainz. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/431; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 29. **PR** no charge. **JE** G13. **KW** Exchange Rate Options. Option Pricing. Forward Risk. Stochastic Interest Rates. Delayed Payment.

AB The aim of the paper is to develop pricing formulas for European type Asian options written on the exchange rate in a two currency economy. The exchange rate as well as the foreign and domestic zero coupon bond prices are assumed to follow geometric Brownian motions. As a special case of a discrete Asian option we analyze the delayed payment currency option and develop closed form pricing and hedging formulas. The main emphasis is devoted to the discretely sampled Asian option. It is shown how the value of this option can be approximated as the sum of Black- Scholes options. The formula is obtained under the application of results developed by Rogers and Shi (1995) and Jamshidian (1991). In addition bounds for the pricing error are determined.

Nilssen, Tore

TI Industrial Policy and Firm Heterogeneity. **AU** Barros, Pedro P.; Nilssen, Tore.

O'Donoghue, Cathal

PD July 1998. **TI** Recasting Safety Nets: Reforming Social Assistance in Germany, Ireland and the United Kingdom. **AU** O'Donoghue, Cathal; Evans, Martin. **AA** O'Donoghue: University of Cambridge. Evans: London School of Economics. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9817; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 24. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C69, H55, I38. **KW** Microsimulation. Income Distribution. Social Assistance. Europe.

AB This paper investigates the simulation of common policy reforms across different countries. Changes to the equivalence scales of social assistance systems in favor of pensioners and children in Germany, Ireland and the United Kingdom were modeled. Unlike a number of previous studies of this kind (e.g. Atkinson et al. 1988), reforms were modeled in the policy and social context in which the reforms are set. To do this, three national tax-benefit microsimulation models were used. The analysis highlighted both the different structures of the policy instruments used across the countries, and the importance of the national environments in which the policy is set.

O'Neill, Barry

PD December 1998. **TI** Risk Aversion in International Relations Theory. **AA** Hebrew University. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/445; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 25. **PR** no charge. **JE** D81, F40. **KW** Risk Aversion. Prospect Theory. International Relations. Joint Receipts. Measurement Theory.

AB When international relations theorists use the concept of risk aversion, they usually cite the economics' conception involving concave utility functions. However, concavity is meaningful only when the goal is measurable on an interval scale. International decisions are usually not of this type, so that many statements appearing in the literature are formally meaningless. Applications of prospect theory face this difficulty especially, as risk aversion and acceptance are at their center. This paper gives two definitions of risk attitude that do not require an interval scale. The second and more distinctive one uses the property of submodularity in place of concavity. R.D. Luce has devised a theory of choice with features of prospect theory but not requiring an interval scale, and the second definition in combination with this theory yields the traditional claim that decision makers are risk-averse for gains and risk-seeking for losses.

O'Sullivan, Paul

TI Beat 'Em or Join 'Em?: Export Subsidies versus International Research Joint Ventures in Oligopolistic Markets. **AU** Neary, J. Peter; O'Sullivan, Paul.

Ockenfels, Axel

PD September 1998. **TI** An Experiment on the Hypothesis of Involuntary Truth-Signalling in Bargaining. **AU** Ockenfels, Axel; Selten, Reinhard. **AA** Ockenfels: University of Magdeburg. Selten: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/440; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany.

Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 24. **PR** no charge. **JE** C78, C91, D70, D82. **KW** Bargaining. Experiments. Face-To-Face. Truth Signaling. Incomplete Information.

AB The paper examines face-to-face interaction in a simple two-person bargaining game with incomplete information about the division of a fixed sum of money in which each bargainer can either have costs to be subtracted from her bargaining agreement payoff or not. The bargaining events are observed by onlookers who make guesses of the cost situations of the participants. The work of Gauthier (1978) and Frank (1987, 1988), among others, suggests that the onlookers' detection accuracy exceeds chance accuracy because of involuntary signals inherent in the behavior of the bargainers. It is shown that cost guesses are somewhat more accurate than chance, but also that this effect is entirely explainable by the onlookers' information about objective features of the bargaining process, namely the bargaining time and the final result.

Oechssler, Jorg

PD July 1997. **TI** Loss of Commitment? An Evolutionary Analysis of Bagwell's Example. **AU** Oechssler, Jorg; Schlag, Karl H. **AA** Oechssler: Humboldt-University of Berlin. Schlag: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/410; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 21. **PR** no charge. **JE** C72, C73, L13. **KW** Commitment. Evolution. Imitation. Learning. Equilibrium Selection.

AB In a recent paper Bagwell (1995) pointed out that only the Cournot outcome, but not the Stackelberg outcome, can be supported by a pure Nash equilibrium when actions of the Stackelberg leader are observed with the slightest error. The Stackelberg outcome, however, remains close to the outcome of a mixed equilibrium. We compare the predictions in various classes of evolutionary and learning processes in this game. Only the continuous best response dynamic uniquely selects the Stackelberg outcome under noise. All other dynamics analyzed allow for the Cournot equilibrium to be selected. In typical cases Cournot is the unique long run outcome even for vanishing noise in the signal.

Oertmann, Peter

PD January 1999. **TI** Global Economic Conditions and Risk Premia on International Investments. **AU** Oertmann, Peter; Zimmermann, Heinz. **AA** University of St. Gallen, Switzerland. **SR** New York University, Salomon Center Working Paper: S/99/04; 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** C51, G11, G12, G15. **KW** International Markets. Factor Models. Asset Pricing. Risk Premia. Market Integration.

AB This paper empirically explores the global trade-off between risk and return on international stock and bond markets. The analysis is performed within the framework of a conditional multi-beta asset pricing model. Estimation results show that the performance of a global portfolio including stock as well as bond investments is basically affected by its exposure to three sources of global risk: the return on the world stock market, changes in the level of global interest rates, and variation in exchange rates between major currencies. There is a clear relationship between global indicators of current and future economic health and the time-variation of risk premia associated with these global factors.

Olarreaga, Marcelo

TI Harmonizing External Quotas in a FTA: A Step Backward? **AU** Cadot, Olivier; de Melo, Jaime; Olarreaga, Marcelo.

Orphanides, Athanasios

PD May 1998. **TI** P* Revisited: Money-Based Inflation Forecasts with a Changing Equilibrium Velocity. **AU** Orphanides, Athanasios; Porter, Richard D. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/26; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 22. **PR** no charge. **JE** E31, E37, E41, E51. **KW** Inflation. M2 Velocity. Quantity Equation. Forecasting. Money Demand.

AB This paper implements recursive techniques to estimate the equilibrium level of M2 velocity and to forecast inflation using the P* model. The recursive estimates of equilibrium velocity are obtained by applying regression trees and least squares methods to a standard representation of M2 demand, namely a model in which the velocity of M2 depends on the opportunity cost of holding M2 instruments. Equilibrium velocity is defined as the level of velocity that would be expected to obtain if deposit rates were at their long-run average (equilibrium) value. We simulate the alternative models to obtain real-time forecasts of inflation and evaluate the performance of the forecasts obtained from the alternative models. We find that while a P* model assuming a constant equilibrium velocity does not provide accurate inflation forecasts in the 1990's, a model based on our time-varying equilibrium velocity estimates does quite well.

PD June 1998. **TI** Price Stability and Monetary Policy Effectiveness when Nominal Interest Rates are Bounded at Zero. **AU** Orphanides, Athanasios; Wieland, Volker. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/35; 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** E31, E32, E52, E58, E61. **KW** Inflation Targeting. Price Stability. Monetary Policy. Liquidity Trap. Business Cycles.

AB This paper employs stochastic simulations of a small structural rational expectations model to investigate the consequences of the zero bound on nominal interest rates. The authors find that if the economy is subject to stochastic shocks similar in magnitude to those experienced in the U.S. over the 1980's and 1990's, the consequences of the zero bound are negligible for target inflation rates as low as 2 percent. However, the effects of the constraint are non-linear with respect to the inflation target and produce a deterioration of the performance of the economy with targets between 0 and 1 percent. The model uncovers that the asymmetry of the policy ineffectiveness induced by the zero bound generates a non-vertical long-run Phillips curve. Output falls increasingly short

of potential with lower inflation targets. The authors also investigate the consequences of the constraint on the analysis of optimal policy based on the inflation-output variability frontier.

PD October 1998. **TI** Monetary Policy Evaluation with Noisy Information. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/50; 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** E52, E58. **KW** Policy Evaluation. Interest Rate Rules. Optimal Control. Observation Noise. Inflation Targeting.

AB This paper investigates the implications of noisy information regarding the measurement of economic activity for the evaluation of monetary policy. A common implicit assumption in such evaluations is that policymakers observe the current state of the economy promptly and accurately and can adjust policy based on this information. However, decisions are made in real time when there is considerable uncertainty about the true state of affairs in the economy. Using a simple model of the U.S. economy, the author shows that failing to account for the actual level of information noise in the historical data provides a distorted picture of feasible macroeconomic outcomes and produces inefficient policy rules. Naive adoption of policies identified as efficient when such information noise is ignored results in macroeconomic performance worse than actual experience. When noise is taken into account, policy reactions are cautious and less sensitive to the apparent imbalances in the unfiltered data.

Pacelli, Lia

TI Short Employment Spells in Italy, Germany and Great Britain: Testing the 'Port-of-Entry' Hypothesis. **AU** Contini, Bruno; Pacelli, Lia; Villoso, Claudia.

Padberg, Manfred

PD October 1998. **TI** Almost Perfect Matrices and Graphs. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98874; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 18. **PR** no charge. **JE** C44, C60. **KW** Almost Integral Polytopes. Almost Perfect Graphs. Graphs. Independence Numbers. Matrices.

AB We introduce the notions of w-projection and k-projection that map almost integral polytypes associated with almost perfect graphs G with n nodes from (R superscript n) into (R superscript n-w) where w is the maximum clique size in G. We show that C. Berge's strong perfect graph conjecture is correct if and only if the projection (of either kind) of such polytopes is again almost integral in (R superscript n-w). Several important properties of w-projections and k-projections are established. We prove that the strong perfect graph conjecture is wrong if an w- projection and a related k-projection of an almost integral polytope with 2 less than or equal to w less than or equal to (n - 1)/2 produce different polytopes in (R superscript n-w).

Pahwa, Munish

TI Comparison of Three Empirical Models of Airport Congestion Pricing. **AU** Daniel, Joseph I.; Pahwa, Munish.

Palombarini, Stefano

TI Technical Change and Incorporated R&D in the Service Sector. **AU** Amable, Bruno; Palombarini, Stefano.

Palomino, Frederic

PD October 1998. **TI** Relative Performance Equilibrium in Financial Markets. **AA** CentER. **SR** Centre for Economic Policy Research Discussion Paper: 1993; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** G11, G14, G23. **KW** Relative Performance. Absolute Performance. Overly-Risky Strategy. Money Management. Fund Managers.

AB Money management is an activity in which agents are often evaluated on the basis of their relative performance. In this article we consider an oligopolistic market in which some informed fund managers aim at maximizing their relative performance, rather than their absolute performance. First, we define a Relative Performance Equilibrium and derive conditions for the existence of such an equilibrium. Secondly, we analyze equilibrium trading strategies. We show that the relative performance evaluation provides incentives to play overly risky strategies, i.e. in equilibrium, and fund managers choose riskier portfolios than they would do if they were maximizing their absolute performance. One of the positive consequences is a higher level of informational efficiency.

PD February 1999. **TI** Risk Taking and Optimal Contracts for Money Managers. **AU** Palomino, Frederic; Prat, Andrea. **AA** CentER. **SR** Centre for Economic Policy Research Discussion Paper: 2066; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 dollars or 8 dollars or 8 euros. **JE** D82, G11, G24. **KW** Money Managers. Risk. Moral Hazard. Limited Liability. Portfolio Management.

AB Recent empirical work suggests a strong connection between the incentives money managers are offered and their risk-taking behavior. The authors develop a general model of delegated portfolio management, with the feature that the agent can control the riskiness of the portfolio. This represents a departure from the existing literature on agency theory in that moral hazard is not only effort exertion but also risk taking behavior. The moral hazard problem with risk taking involves an incentive-compatibility constraint on risk, which the authors characterize. They distinguish between one period and several periods. In the former case, under mild conditions, there exists a first-best contract which takes the form of a bonus contract. In the latter, the authors show that there exists no first-best contract and they use a numerical approximation to study the properties of the second-best contract.

Panayotou, Theodore

TI Discounting Costs and Benefits in Carbon Sequestration Projects. **AU** Boscolo, Marco; Vincent, Jeffrey R.; Panayotou, Theodore.

Parker, Eric

TI Industrial Change and Regional Development: The Case of the US Biotechnology and Pharmaceutical Industries. **AU** Gray, Mia; Parker, Eric.

Parsons, George R.

TI The Effect of Nesting Structure Specification on Welfare Estimation in a Random Utility Model of Recreation Demand: An Application to the Demand for Recreation Fishing. **AU** Hauber, Brett A.; Parsons, George R.

PD November 1998. **TI** Narrow Choice Sets in Random Utility Models of Recreation Demand. **AU** Parsons, George R.; Plantinga, Andrew J.; Boyle, Kevin J. **AA** Parsons: University of Delaware. Plantinga and Boyle: University of Maine. **SR** University of Delaware, Department of Economics Working Paper: 98/12; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 20. **PR** no charge. **JE** D60, H41, Q22, Q26. **KW** Choice Sets. Random Utility. Recreation Demand. Site Choice.
AB This paper considers the implications of narrow choice sets on welfare estimation in Random Utility Models in recreation demand. The authors hypothesize that careful formulation of the choice set focusing on the sites of policy interest and their closest substitutes will give reasonably accurate welfare estimates. They use nearby sites as close substitutes for the sites of policy interest and treat the more distant sites as aggregate alternatives in their application to fishing in Maine. The authors find that the welfare estimates are rather sensitive to narrowing choice sets in this manner and that sensitivity largely tracked variation in the estimated travel cost coefficient across the different models considered.

PD November 1998. **TI** A Comparison of Welfare Estimates from Four Models for Linking Seasonal Recreational Trips to Multinomial Logit Models of Site Choice. **AU** Parsons, George R.; Jakus, Paul M.; Tomasi, Ted. **AA** Parsons: University of Delaware. Jakus: University of Tennessee. Tomasi: University of Delaware and Entry Inc. **SR** University of Delaware, Department of Economics Working Paper: 98/13; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 22. **PR** no charge. **JE** D60, D71, Q22, Q26. **KW** Site Choice. Random Utility. Seasonal Trip. Welfare.
AB The authors compare four methods for linking a site choice Random Utility Model to a seasonal trip model. The four approaches are those proposed by Morey, Rowe, and Watson (1993), Hausman, Leonard, and McFadden (1995), Parson and Kealy (1995), and Feather, Hellerstein, and Tomasi (1995). The alternative models are estimated using a common data set, and a change in welfare for two policy scenarios is calculated across the models. The paper finds that there is little practical difference between the Morey, Rowe, and Watson and the Hausman, Leonard and McFadden approaches. They are nearly the same mathematically and the welfare estimates in the empirical example are quite close. The Parsons and Kealy and the Feather, Hellerstein and Tomasi approaches generated substantially different welfare estimates from the previous two approaches as well as from each other. They also generated results that reveal the inconsistencies between the site choice and season trip models.

PD November 1998. **TI** The Cost of Beach Retreat: A Hedonic Price Analysis of Delaware Beaches. **AU** Parsons, George R.; Powell, Michael. **AA** Parsons: University of Delaware. Powell: Department of Natural Resources and Environmental Control. **SR** University of Delaware, Department of Economics Working Paper: 98/14; Department of Economics, University of Delaware, Newark, DE 19716-2720. Website: www.be.udel.edu/Econ_site/Working_Papers.html. **PG** 14. **PR** no charge. **JE** D12, Q24, Q28, R31. **KW** Beach Migration. Land Loss. Capital Loss. Nourishment Beaches.
AB We estimate the cost over the next 50 years of allowing Delaware's ocean beaches to migrate inland. Since most of the costs are expected to be land and capital loss, especially in housing, we focus our attention on measuring that value. We use a hedonic price regression to estimate the value of land and structures in the region using a data set on recent housing sales. Then, using historical rates of erosion along the coast and an inventory of all housing and commercial structures in the threatened coastal area, we predict the value of the land and capital loss assuming the beaches migrate inland at these historic rates. We purge the losses of any amenity values due to proximity to the coast, because these are merely transferred to properties further inland. Our best estimate of the cost of retreat over the next 50 years in present value terms is about $200 million. We compare these estimates to the current costs of nourishing beaches and a scenario that allows for a reasonably large growth in nourishment beaches and a scenario that allows for a reasonably large growth in nourishment cost over the next 50 years. Nourishment appears to make economic sense, at least over that time period.

Pauchet, Mariane

TI Fixed-Term Contracts and the Dynamics of Labour Demand. **AU** Goux, Dominique; Maurin, Eric; Pauchet, Mariane.

Peaucelle, Irina

PD June 1998. **TI** Firms Innovation Activity and Patenting: Russian Care in Mind. **AA** CNRS and CEPREMAP. **SR** CEPREMAP Discussion Paper: 9809; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 25. **PR** between 25-35 francs. **JE** K11, O31, O34, P31. **KW** Property Rights. Innovation. Patents. Russia.
AB The Russian Federation, which was created in 1992, recognizes patents granted by the USSR. The development of a new Industrial Property Rights (IPR) law contributed to channeling of potential private funding towards research activities. The experience of various European countries may be compared with current Russian practices. In this perspective, the following issues may be addressed: the legal framework for intellectual property resulting from the evolution of the soviet system and from the conflicts of interests in the new market situation; the management of patents developed by research centers and firms, and particularly the marketing of new technologies. Finally, patent pricing and its influence on the value of research contracts should also be studied, as they are at the core of negotiations. The innovative activity is still timid, being constrained by budget restrictions and by high political and economic risks for investors.

Pedersen, Christian C.

PD October 1998. **TI** Utility Functions with Parameters Depending on Initial Wealth. **AU** Pedersen, Christian C.; Satchell, Stephen E. **AA** Pedersen: Trinity College. Satchell: University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9819; Department of Applied Economics,

University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. PG 15. PR $10.00 (5 pounds); checks payable to University of Cambridge. JE D11, D81, D84, G11. KW Initial Wealth. Expected Utility. Risk Aversion. Principal Agent.

AB Conventional one-period utility functions in economics assume that initial wealth only enters preferences through the definition of final wealth. As a consequence, those utility functions most utilized (i.e. exponential and quadratic) have implausible risk characteristics. The authors characterize a new class of utility functions whose parameters depend upon initial wealth. Several desirable results are obtained. In particular, investors with quadratic and exponential utility functions can have decreasing risk aversion and will increase their share of the risky asset as they get wealthier. Additionally, the authors show how making parameters depend on initial wealth extends the class of functions which give two-fund separation and can convert the traditional principal-agent problem to one which accounts for observed behavior of asset managers and pension funds.

Pena, J. Ignacio

TI Can Output Explain the Predictability and Volatility of Stock Returns? AU Rodriguez, Rosa; Restoy, Fernando; Pena, J. Ignacio.

Pereira, Pedro

TI Portuguese Migrants in the German Labour Market: Performance and Self-Selection. AU Bauer, Thomas; Zimmermann, Klaus F.; Vogler, Michael; Pereira, Pedro T.

Perkins, Dwight H.

PD January 1998. TI Ownership and Control of Malaysian Industry and Business Services: Rents versus Profits. AA Harvard University. SR Harvard Institute for International Development, Development Discussion Paper: 617; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website: www.hiid.harvard.edu/pub/ddps.html. PG 64. PR paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. JE F23, G38, L30, L52, O14. KW Competitiveness. Development. Industrialization. Ownership. Foreign Direct Investment.

AB The central question raised in this essay is whether the Malaysian industrial and modern service sector is now and will remain internationally competitive. In quantitative terms, the pattern of Malaysian development and industrialization is not unusual. The more interesting question is whether government policy has contributed to or held back the international competitiveness of these sectors. This essay first approaches that question with a historical review of government efforts to promote industry while restructuring ownership, which includes an analysis of the policies designed to raise the share of Bumiputra individuals and entrepreneurs in this process, the need to exempt most foreign direct investment from ownership restructuring, the attempt to use state enterprises as the main vehicle for developing heavy industry, and the subsequent privatization effort with its special Malaysian characteristics. The essay then reviews the state of Malaysian industry and modern services as of the mid 1990's.

Perloff, Jeffrey M.

TI Estimating Coke and Pepsi's Price and Advertising Strategies. AU Golan, Amos; Karp, Larry S.; Perloff, Jeffrey M.

TI An Information Based Sample-Selection Estimation Model of Agricultural Workers' Choice Between Piece-Rate and Hourly Work. AU Golan, Amos; Moretti, Enrico; Perloff, Jeffrey M.

Perotti, Enrico C.

PD November 1998. TI Machiavellian Underpricing. AU Perotti, Enrico C.; Biais, Bruno. AA Perotti: Universiteit van Amsterdam. Biais: Universitedes Sciences Sociales de Toulouse. SR Centre for Economic Policy Research Discussion Paper: 2014; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 40. PR 5 pounds or 8 dollars or 8 euros. JE D72, G32, H31, L33, P26. KW Privatization. Political Economy. Underpricing. Political Risk. Elections.

AB We analyze politically motivated privatization design in a bipartisan environment where politicians lack commitment power. Suppose the median class voters a priori favor redistributive policies. If the privatization program succeeds in allocating enough shares to these citizens, they become averse to redistributive policies, which would be detrimental to the values of their shareholdings. To induce the median class voters to buy enough shares to shift their political preferences, underpricing is often necessary. The more unequal the society, the poorer the median class, the less willing they are to buy shares, the larger the necessary underpricing. When inequalities are large this leads to voucher privatization. Shifting the preferences of the middle class by privatizing is impossible when strong ex-ante political constraints require large upfront transfers to insiders, reducing the value which may be distributed through the privatization program, or when social inequality is extreme.

Persson, Torsten

TI The Size and Scope of Government: Comparative Politics With Rational Politicians. AU Tabellini, Guido; Persson, Torsten.

Pesaran, M. Hashem

TI Cross-Sectional Aggregation of Non-Linear Models. AU Van Garderen, Kees Jan; Lee, Kevin C.; Pesaran, M. Hashem.

TI Bayes Estimation of Short-Run Coefficients in Dynamic Panel Data Models. AU Hsaio, Cheng; Pesaran, M. Hashem; Tahmiscioglu, A. Kamil.

TI Optimal Consumption Decisions under Social Interactions. AU Binder, Michael; Pesaran, M. Hashem.

TI Analytical and Numerical Solution of Finite-Horizon Nonlinear Rational Expectations Models. AU Binder, Michael; Pesaran, M. Hashem; Samiei, S. Hossein.

PD June 1998. TI Structural Analysis of Cointegrating VARs. AU Pesaran, M. Hashem; Smith, Ron P. AA Pesaran: University of Cambridge. Smith: Birkbeck College. SR University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series:

9811; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 31. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C12, C22, C32. **KW** Autoregression. Distributed Lags. Simultaneous Equations. Impulse Response.

AB This survey uses a number of recent developments in the analysis of cointegrating Vector Autoregressions (VAR) to examine the links to the older structural modeling traditions using Autoregressive Distributed Lag (ARDL) and Simultaneous Equations Models (SEM). In particular, it emphasizes the importance of using judgment and economic theory to supplement the statistical information. After a brief historical review, it sets out the statistical framework, starting from the structural vector ARDL model, and discusses the large number of choices applied workers have to make in determining a specification. It considers one choice, the size of the VAR, in more detail and examines the advantages of the use of exogenous variables. The issues are illustrated with a small U.S. macroeconomic model.

TI A Long-Run Structural Macroeconometric Model of the UK. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol.

PD August 1998. **TI** Economic Trends and Macroeconomic Policies in Post-Revolutionary Iran. **AA** University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9818; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 25. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** E66, F41, O11, O21. **KW** Macroeconomic Trends. Monetary Policy. Exchange Rates. Iran.

AB This paper reviews some of the main trends in the Iranian economy over the past two decades and discusses the key economic policy issues that divide the reformist from the more conservative factions in Iran. It argues that the economic policy dilemma of whether or not to liberalize the economy has not gone away. For a small open economy such as Iran operating in an increasingly globalized world economic environment, the neglect of fundamental economic forces in favor of political vested interest can have dire consequences in the long run.

TI A Structural Cointegrating VAR Approach to Macroeconometric Modelling. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol.

TI Maximum Likelihood Estimation of Fixed Effects Dynamic Panel Data Models Covering Short Time Periods. **AU** Cheng, Hsaio; Pesaran, M. Hashem; Tahmiscioglu, A. Kamil.

Pestieau, Pierre

TI On The Political Sustainability of Redistributive Social Insurance Systems. **AU** Casamatta, Georges; Cremer, Helmuth; Pestieau, Pierre.

TI Fiscal Policy when Individuals Differ Regarding to Altruism and Labor Supply. **AU** Michel, Philippe; Pestieau, Pierre.

Peterson, Stephen P.

PD April 1998. **TI** Another Path to Customs Reform: Mexico's Second Inspection. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 632; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 19. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** F13, F14, F40. **KW** Customs. Physical Control. Inspections. Administrative Reform. Mexico.

AB As customs moves from physical control to documentary compliance, the private sector can and will play a larger role in customs administration. The widespread use of Pre-Shipment Inspection (PSI) and Mexico's innovative privatized second inspection illustrate these trends. This paper examines Mexico's recently introduced Second Inspection which is privatized and provides a check on the government's physical inspection. The Second Inspection is uniquely poised to improve both physical control and documentary audit in Mexico's customs by defining Rough Justice in customs. Rough Justice is a recognition of the limitations of time and space in customs operations and is an approach that promotes systematic but selective review of contents and documents. Unlike PSI services, Mexico's Second Inspection builds the capacity of a government's customs administration. The paper concludes with several observations about administrative reform of customs. Mexico's Second Inspection has promoted accountability by providing a layer of administrative redundancy.

Petit, Pascal

PD April 1998. **TI** Structural Forms and Growth Regimes of the Post Fordist Era. **AA** CEPREMAP, CNRS. **SR** CEPREMAP Discussion Paper: 9818; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 28. **PR** between 25-35 francs. **JE** E12, E65, F43, O11. **KW** Institutional Change. Regulation Theory. Growth Regimes. Post Fordism.

AB The objective of the paper is to set up a theoretical analysis of contemporary institutional changes in order to characterize a post fordist growth regime. After reviewing some stylized facts about the present growth regime the paper presents the main theoretical tools provided by Regulation theory. The framework of analysis of institutional change presented requires the predominance in each period of one of the five structural forms that are distinguished. As the dynamics of institutional changes in the wage labor relationships did in the previous period, today evolutions in the forms of competition (broadly taken) condition all institutional changes. This gives us a general grid to define the fabric of a post fordist regime. Still differences in history and structures leave room for sizable differentiation in the national trajectories of the developed economies, all the more so that competition between nation states prevents them from launching the structural policies that would be relevant to the new regime.

PD September 1998. **TI** Globalization in Search of a Future: The Contemporary Challenge to National Policies. **AU** Petit, Pascal; Soete, Luc. **AA** Petit: CEPREMAP, CNRS. Soete: Universite du Limburg. **SR** CEPREMAP Discussion Paper: 9819; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. **PG** 23. **PR** between 25-35 francs. **JE** F01, F43, H11, L52. **KW** Globalization. Foreign Trade. Direct Investment. Industrial Policy.

AB The globalization process, formerly dominated by international trade and investment, is largely borne today by the reduction in the costs of information and communication processing, which altogether with the accumulation of knowledge and experience, deeply transforms the context for international transactions. This fast-paced global restructuring process raises some fundamental policy challenges. At the national level, it has made policy makers much more aware of the increased international implications of their policy actions. Policies that might appear "sustainable" within a national context may appear less so in an international one. On the other hand nation states remain the only actors that can help forge the new policy compromises that are needed. This holds not only for traditional macro-economic policy, but also for social, fiscal policy, social security, and other policies traditionally pursued at the national level. More than ever, the traditional national toolbox of policy instruments appears to be in need of some international counterpart.

Petrakis, Emmanuel

TI Wages and Productivity Growth in a Competitive Industry. AU Bester, Helmut; Petrakis, Emmanuel.

Petranov, Stefan

TI The First Wave of Privatization in Bulgaria and its Immediate Aftermath. AU Miller, Jeffrey B.; Petranov, Stefan.

Pierce, Renee K.

TI Investment Returns and Risk for Art: Evidence from Auctions of American Paintings (1971-1996). AU Agnello, Richard J.; Pierce, Renee K.

Piketty, Thomas

PD July 1999. TI High Income Taxpayers' Reactions to Marginal Income Tax Rates Changes in France, 1970-1996. AA CEPREMAP and CNRS. SR CEPREMAP Discussion Paper: 9812; Bibliotheque, CEPREMAP, 142 rue du Chevaleret, 75013-Paris, France. PG 179. PR between 25-35 francs. JE D31, H22, H24, J22. KW Income Taxation. Labor Supply. Income Distribution. Tax-Induced Behavior.

AB This paper uses the main income tax law changes that occurred in France over the 1970-1996 period as natural experiments in order to estimate the elasticity of high-income taxpayers' taxable income with respect to marginal tax rates. Given the large pro-cyclicity of the very-high-income taxpayers' income share over the entire period, we use annual tax returns data about the level and composition of income within the top decile and the top centile of the taxpayers distribution of taxable income. The general conclusion is that the relatively large changes in top marginal income tax rates (both in 1981-1982 and 1986- 1987) did not induce any important structural change in the distribution. The distribution of taxable income among high-income taxpayers is extremely stable in France over the entire 1970-1996 period, and short-term fluctuations are better explained by the business cycle than by tax-induced behavioral changes.

Piscitelli, Laura

TI EMU in Reality: The Effect of a Common Monetary Policy on Economies with Different Transmission Mechanisms. AU Hughes Hallett, Andrew J.; Piscitelli, Laura.

Pissarides, Christopher A.

PD January 1999. TI New Developments in Models of Search in the Labour Market. AU Pissarides, Christopher A.; Mortensen, Dale T. AA Pissarides: London School of Economics. Mortensen: Northwestern University. SR Centre for Economic Policy Research Discussion Paper: 2053; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. PG 88. PR 5 dollars or 8 dollars or 8 euros. JE D58, E24, J31, J41, J64. KW Search. Unemployment. Job Creation. Hiring Subsidies. Wage Subsidies.

AB This paper surveys recent work in equilibrium models of labor markets characterized by search and recruitment frictions and by the need to reallocate workers across productive activities. The duration of unemployment and jobs and wage determination are treated as endogenous outcomes of job creation and job destruction decisions made by workers and firms. The solutions studied are dynamic stochastic equilibria in the sense that time and uncertainty are explicitly modeled, expectations are rational, private gains from trade are exploited and the actions taken by all agents are mutually consistent. A number of alternative wage determination mechanisms are explored, including the frequently studied non-cooperative wage bargaining and wage posting by firms. We use the framework to study the influence of alternative labor market institutions and policies on wages and unemployment.

TI Job Reallocation, Employment Fluctuations and Unemployment. AU Mortensen, Dale T.; Pissarides, Christopher A.

Pistaferri, Luigi

TI What Determines Earnings and Employment Risk. AU Guiso, Luigi; Jappelli, Tullio; Pistaferri, Luigi.

Plantinga, Andrew J.

TI Narrow Choice Sets in Random Utility Models of Recreation Demand. AU Parsons, George R.; Plantinga, Andrew J.; Boyle, Kevin J.

Polemarchakis, Heracles M.

TI Pareto Improving Price Regulation when the Asset Market is Incomplete. AU Herings, Jean-Jacques P.; Polemarchakis, Heracles M.

TI Intertemporal General Equilibrium and Monetary Theory. AU Dreze, Jacques H.; Polemarchakis, Heracles M.

Pollitt, Michael G.

PD January 1999. TI A Survey of the Liberalisation of Public Enterprises in the UK since 1979. AA University of Cambridge. SR University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9901; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. PG 31. PR $10.00 (5 pounds); checks payable to University of Cambridge. JE L32, L33, L51, L98. KW Privatization. Liberalization. Regulation. United Kingdom.

AB This paper examines the course of the deregulation and privatization of public enterprises in the United Kingdom since 1979. The United Kingdom privatization programme has been the most significant in the OECD (Organisation for Economic Co-operation and Development), involving the transfer of

ownership of over 7 percent of gross domestic product (GDP) from the public to the private sector. The paper examines the history and genesis of this programme, the development of the regulatory system based around RPI-X (rate of inflation minus x) price control and the evidence on the effects of the privatization. The paper concludes by evaluating the policy in terms of its original aims. Public enterprise privatization successfully reduced government involvement in industry, led to increased economic efficiency and a reduced fiscal deficit. Less clearly, it contributed to the curbing of Trade Union power and to wider share ownership. Most significantly of all, as the most sustained and consistent policy of the 1979-97 Conservative governments, it gained sustained advantage for pro-market political forces in the United Kingdom.

Pope, Robin

PD February 1999. **TI** Reconciliation with the Utility of Chance by Elaborated Outcomes Destroys the Axiomatic Basis of Expected Utility Theory. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/449; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 7. **PR** no charge. **JE** D81. **KW** Utility of Chance. Elaborated Outcomes. Expected Utility. Axiomatization. Representation Theorem.

AB Expected utility theory does not directly deal with the utility of chance. It has been suggested in the literature (Samuelson 1952, Markowitz 1959) that this can be remedied by an approach which explicitly models the emotional consequences which give rise to the utility of chance. We refer to this as the elaborated outcomes approach. It is argued that the elaborated outcomes approach destroys the possibility of deriving a representation theorem based on the usual axioms of expected utility theory. This is shown with the help of an example due to Markowitz. It turns out that the space of conceivable lotteries over elaborated outcomes is too narrow to permit the application of the axioms. Moreover, it is shown that a representation theorem does not hold for the example.

PD February 1999. **TI** Local Manufacturing Hurt by Depreciations in a Theoretical Model Reflecting the Australian Experience. **AU** Pope, Robin; Selten, Reinhard. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/450; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 53. **PR** no charge. **JE** F14, F31, F41. **KW** Exchange Rates. Manufacturing Output. Input Costs. Exports. Raw Materials.

AB The model is motivated by data showing that the Australian production of local manufactures is hurt by depreciations and invigorated by appreciations. The paper briefly presents such evidence and then proceeds to a theoretical analysis. The model aims at capturing short- to-medium run exchange rate effects in an economy with goods and services aggregated into four commodities: Rural goods, imports, local manufactures and services. In the course of the analysis, it is first shown that a uniquely determined equilibrium exists for every exchange rate above a lower bound. Then the effects of a change in the exchange rate are investigated. In most cases the results are unambiguous. In particular this is true for the output and the price of local manufactures. Other conclusions are that a depreciation increases exports and the amount of services provided. In some cases unequivocal results can be obtained only with the help of further assumptions.

Porter, Richard D.

TI P* Revisited: Money-Based Inflation Forecasts with a Changing Equilibrium Velocity. **AU** Orphanides, Athanasios; Porter, Richard D.

PD August 1998. **TI** Currency Ratios and U.S. Underground Economic Activity. **AU** Porter, Richard D.; Weinbach, Gretchen C. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/41; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 10. **PR** no charge. **JE** E23, E41, E69, O17. **KW** Currency Ratios. Underground Economy. Retail Sweep Programs. Money Demand. Informal Sector.

AB Cagan's classic currency ratio suggests that underground economic activity in the U.S. surged starting in 1994. In contrast, we show that a ratio adjusted to take care of two distorting developments -- retail sweep programs and overseas demand for U.S. currency -- did not surge, and that movements in the adjusted ratio owe primarily to the differential effects of interest rates on currency and checkable deposits. As a result, we are skeptical of monetary-based claims that the underground economy has expanded significantly in recent years and believe that any claims that it has must rely on other evidence.

Powell, Michael

TI The Cost of Beach Retreat: A Hedonic Price Analysis of Delaware Beaches. **AU** Parsons, George R.; Powell, Michael.

Prasad, Eswar S.

PD April 1999. **TI** International Trade and the Business Cycle. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/56; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 17. **PR** not available. **JE** E32, F14, F32, F41, F47. **KW** Trade Balance. Business Cycles. Vector Autoregressions. Forecasting.

AB This paper develops a new empirical framework for analyzing the dynamics of the trade balance in response to different types of macroeconomic shocks. The model provides a synthetic perspective on the conditional correlations between the business cycle and the trade balance that are generated by different shocks and attempts to reconcile these results with unconditional correlations found in the data. The results suggest that, in the post-Bretton Woods period, nominal shocks have been an important determinant of the forecast error variance for fluctuations in the trade balances of the Group of Seven countries.

Prat, Andrea

TI Risk Taking and Optimal Contracts for Money Managers. **AU** Palomino, Frederic; Prat, Andrea.

Pratten, Stephen

TI Quasi-Markets, Transaction Costs and Trust: Institutional Change in Broadcasting. **AU** Deakin, Simon; Pratten,

Stephen.

Pritsker, Matthew G.

PD November 1998. **TI** A Rational Expectations Model of Financial Contagion. **AU** Pritsker, Matthew G.; Kodres, Laura E. **AA** Pritsker: Board of Governors of the Federal Reserve System. Kodres: International Monetary Fund. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/48; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 57. **PR** no charge. **JE** D82, D84, F36, G14, G15. **KW** Rational Expectations. Contagion. Emerging Markets. Financial Crises. Hedging.

AB The authors develop a multiple asset rational expectations model of asset prices to study the determinants of financial market contagion, and to provide an explanation for the pattern of contagion during the Asian financial crisis. Their findings show that the pattern and severity of financial contagion depends on the size of markets' sensitivities to common macroeconomic risk factors. The amount of information asymmetry within a financial market also increases its susceptibility to contagion. The authors focus on contagion through the cross-market hedging of macroeconomic risks. Through this channel, idiosyncratic shocks in one market are transmitted to others. Interestingly, contagion can occur between markets that have no macroeconomic risks in common. In addition, contagion occurs in the absence of any news, and before the macroeconomic risk factors are realized. The pattern of contagion is strongly influenced by the presence or absence of derivatives markets for unbundling and hedging the macroeconomic risks.

Proudman, James

TI Productivity Growth, Convergence and Trade in a Panel of Manufacturing Industries. **AU** Cameron, Gavin; Proudman, James; Redding, Stephen.

Psaradakis, Zacharias

TI An Empirical Reassessment of Target-Zone Nonlinearities. **AU** Garratt, Anthony; Psaradakis, Zacharias; Sola, Martin.

Puhani, Patrick A.

PD November 1998. **TI** Advantage Through Training? A Microeconometric Evaluation of the Employment Effects of Active Labour Market Programmes in Poland. **AA** ZEW. **SR** Centre for Economic Policy Research Discussion Paper: 2000; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 72. **PR** 5 pounds or 8 dollars or 8 euros. **JE** J16, J24, J64, J68. **KW** Unemployment. Human Capital. Microeconometrics. Labor Market Policy. Poland.

AB The authors estimate the employment effects of training, intervention works (subsidized employment) and public works programs in Poland. The analysis is based on retrospective monthly calendar information on the labor force state and Active Labor Market Programme (ALMP) participation between January 1992 and August 1996. The data are obtained from the Polish Labor Force Survey of August 1996 and its Supplement on Labor Market Policies. The authors use two widely applied approaches to identify causal effects. First, non-parametric estimates of the program effects are obtained on the basis of matched samples. Second, the authors use traditional econometric modeling in the form of duration models with unobserved individual heterogeneity. They find that training improves the employment opportunities of both men and women, whereas intervention and public works do not: intervention works prolong unemployment for both genders as do public works for men.

Qian, Yingyi

TI Incentives, Information, and Organizational Form. **AU** Maskin, Eric; Qian, Yingyi; Xu, Chenggang.

Quah, Danny

PD March 1999. **TI** The Weightless Economy in Economic Development. **AA** London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 417; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 28. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** N15, O11, O14, O33. **KW** China. Information Technology. Intellectual Property. Tacit Knowledge.

AB Can the increasing significance of knowledge-products in national income -- the growing weightless economy -- influence economic development? Those technologies reduce 'distance' between consumers and knowledge production. This paper analyzes a model embodying such a reduction. The model shows how demand-side attributes -- consumer attitudes on complex goods; training, education, and skills for consumption (rather than production) -- can importantly affect patterns of economic growth and development. Evidence from the failed Industrial Revolution in 14th-century China illustrates the empirical relevance of the analysis.

Quinn, Brian J. M.

PD January 1998. **TI** Review of Power Sector Reform Issues in Viet Nam. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 620; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 18. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** L33, L94, M10, P31, Q48. **KW** Electric Utilities. Socialist Enterprises. Transition. Energy Policy. Vietnam.

AB Vietnam's power sector is rapidly changing due in part to underlying transformation of the economy from a centrally planned economy to a market-oriented one and rapid demand growth forcing innovations on the Vietnamese power utility. Vietnam's electrical utility, Electricity of Vietnam (EVN), had been organized like power sectors in many centrally planned economies. Since the mid-1990's EVN has embarked on a cautious reform effort. As a first step to improve business performance, the government has focused on corporatization of the electricity sector. To support the corporatization agenda, the government has outlined a number of other areas for reform and attention, including: Structural Reform and Commercialization; Electricity Law and Improved Regulatory Framework; Electricity Pricing; Private Sector Participation; Rural electrification; and Demand Side Management. The paper outlines the approach to be taken by EVN in each of these areas and evaluates risks that the sector faces in reaching its reform

goals.

Radics, Norbert

TI *Square Grids with Long "Diagonals"* **AU** Gaspar, Zsolt; Radics, Norbert; Recski, Andras.

Raess, Pascal

PD February 1999. **TI** A Model of Regulation in the Housing Market. **AU** Raess, Pascal; von Ungern-Sternberg, Thomas. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9903; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 38. **PR** no charge. **JE** D83, L59, L85, R20, R31. **KW** Housing. Monopolistic Competition. Regulation. Search. Hold-Up.

AB This paper develops a theoretical model to study the effects of regulation on the housing market. Our model emphasizes the following specific features of the housing market: product heterogeneity plays an important role, search costs are high, switching (moving) costs are substantial, and the possibilities to price discriminate are important. We show that in an unregulated housing market rents will increase at the time of renegotiation as a result of the "hold-up" problem. A regulation which limits the owners' possibilities to increase his rents for a certain number of years leads to lower equilibrium rents and higher social welfare. Our model strongly suggests that a policy which consists of indexing rents may be socially preferable to a simple laissez-faire solution.

Ramarkishnan, Subramaniam

PD January 1998. **TI** Budgeting and Financial Management in Sub-Saharan Africa: Key Policy and Institutional Issues. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 622; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 22. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** E62, F35, H61, H62. **KW** Fiscal Policy. Public Finance. Budget Systems. Deficits.

AB A number of countries in Sub-Saharan Africa are now witnessing some economic growth after decades of stagnation. However fiscal performance in most countries in the region remains poor characterized by a high ratio of public expenditures to GDP, poor realization of revenues and large and continuing fiscal deficits. This paper surveys some continuing constraints in the fiscal systems in Sub-Saharan Africa and suggests a major transformation of the budget processes with a view to improve fiscal performance and the efficiency with which public sector financial resources are managed. Budget processes need to be made more predictable than they are now, transparent and the only means for allocating public expenditures. In addition two fundamental changes are suggested: the first is to enhance the effectiveness of a macroeconomic framework for the allocation of resources and the second to reorient the annual budget processes to be consistent with a medium-term expenditure planning framework.

Ramaswamy, Ramana

PD April 1999. **TI** Japan's Stagnant Nineties: A Vector Autoregression Retrospective. **AU** Ramaswamy, Ramana; Rendu, Christel. **AA** Ramaswamy: International Monetary Fund. Rendu: London Business School. **SR** International Monetary Fund Working Paper: 99/45; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 21. **PR** not available. **JE** C22, E17, E32, E62, O40. **KW** Japan. Vector Autoregressions. Shocks. Bubble. Business Cycles.

AB This paper uses a vector autoregression (VAR) approach to identify the driving forces of the growth slowdown in Japan during the 1990's. Negative shocks to both residential and nonresidential investment are shown to have been important determinants of the slowdown. Despite the collapse in asset prices, negative shocks to private consumption were relatively small. A surprising conclusion is that trends in public consumption had a dampening impact on activity in the 1990's. The VAR estimations do not support the counterfactual conjecture that activity in Japan would have been significantly weaker in the absence of the expansionary shift in fiscal policy.

Rankin, Neil

PD February 1999. **TI** Maximum Sustainable Government Debt in the Overlapping Generations Model. **AU** Rankin, Neil; Roffia, Barbara. **AA** Rankin: University of Warwick. Roffia: Xerox S.p.A. **SR** Centre for Economic Policy Research Discussion Paper: 2076; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 dollars or 8 dollars or 8 euros. **JE** D90, E21, E22, E62, H63. **KW** Government Debt. Overlapping Generations. Catastrophes. Maximum Sustainability.

AB The theoretical determinants of maximum sustainable government debt are investigated using Diamond's overlapping-generations model. A level of debt is defined to be 'sustainable' if a steady state with non- degenerate values of economic variables exists. We show that a maximum sustainable level of debt almost always exists. Most interestingly, it normally occurs at a 'catastrophe' rather than a 'degeneracy', i.e. where variables such as capital and consumption are in the interiors, rather than at the limits, of their economically meaningful ranges. This means that if debt is increased step by step, the economy may suddenly collapse without obvious warning.

Rauch, James E.

TI Overcoming Informational Barriers to International Resource Allocation: Prices and Group Ties. **AU** Casella, Alessandra; Rauch, James E.

Rausser, Gordon C.

TI Food Import Demand in the Czech Republic. **AU** Janda, Karel; Rausser, Gordon C.; McCluskey, Jill.

TI *A Dynamic Model of the Food Processing Sector in the* New Market Economies of Central Europe. **AU** Lyons, Robert; Goodhue, Rachel E.; Rausser, Gordon C.; Simon, Leo K.

TI Performance Pay and Producer Incentives: Analyzing Broiler Chicken Production Contracts. **AU** Goodhue, Rachel E.; Rausser, Gordon C.; Simon, Leo K.

PD April 1999. **TI** Valuing Research Leads: Bioprospecting and the Conservation of Genetic Resources. **AU** Rausser, Gordon C.; Small, Arthur A. **AA** University

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of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 819R2; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 39. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** O31, O34, Q16, Q20. **KW** Research. Genetic Resources. Biodiversity Conservation. Intellectual Property. Ecological Information.

AB Bioprospecting has been touted as a source of finance for biodiversity conservation. Recent work has suggested that the bioprospecting value of the "marginal unit" of genetic resources is likely to be vanishingly small, creating essentially no conservation incentive. This result is shown to flow specifically from a stylized description of the research process as one of brute-force testing, unaided by an organizing scientific framework. Scientific models channel research effort towards leads for which the expected productivity of discoveries is highest. Leads of unusual promise then command information rents, associated with their role in reducing the costs of search. When genetic materials are abundant, information rents are virtually unaffected by increases in the profitability of product discovery, and decline as technological improvements lower search costs. Numerical simulation results suggest that, under plausible conditions, the bioprospecting value of certain genetic resources could be large enough to support market-based conservation of biodiversity.

PD April 1999. **TI** Cleanup Delays at Hazardous Waste Sites: An Incomplete Information Game. **AU** Rausser, Gordon C.; Simon, Leo K.; Zhao, Jinhua. **AA** Ruasser and Simon: University of California, Berkeley. Zhao: Iowa State University. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 839; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 38. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** D82, K32, Q24, Q25, Q28. **KW** Hazardous Waste. Incomplete Information. Environmental Economics. Cleanup Superfund. Information Transmission.

AB This paper studies the incentives facing Potentially Responsible Parties at a hazardous waste site to promote excessive investigation of the site and thus postpone the beginning of the remediation phase of the cleanup. The authors model the problem as an incomplete information, simultaneous-move game between PRP's. Each PRP's type is its private information about the precision of its own records relating to the site. A strategy for a PRP is a function mapping its type into announced levels of precision. Once types have been realized, the regulator aggregates the realized precision announcements and imposes the investigation schedule according to a predetermined policy function. The authors show that a pure-strategy Nash equilibrium exists, in which the PRP's strategy is monotone increasing in its type. They prove that PRP's with higher liability shares have greater incentives to delay. They also show that under certain conditions delay becomes more likely.

Ravn, Morten O.

TI The Macroeconomic Effects of German Unification: Real Adjustments and the Welfare State. **AU** Canova, Fabio; Ravn, Morten O.

TI Crossing the Rio Grande: Migrations, Business Cycles and the Welfare State. **AU** Canova, Fabio; Ravn, Morten O.

Rebelo, Sergio

TI Prospective Deficits and the Asian Currency Crises. **AU** Burnside, Craig; Eichenbaum, Martin; Rebelo, Sergio.

Recski, Andras

TI Square Grids with Long "Diagonals" **AU** Gaspar, Zsolt; Radics, Norbert; Recski, Andras.

Redding, Stephen

PD May 1999. **TI** Path Dependence, Endogenous Innovation and Growth. **AA** London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 424; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 37. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** O11, O14, O31, O41. **KW** Endogenous Innovation. Fundamental Knowledge. Path Dependence. Research and Development. Technological Lock-In.

AB We consider a macroeconomic model of endogenous innovation and growth, in which technological progress is path dependent and technological lock-in may occur. These features of technological change are emphasized in the historical and microeconomic literatures, and are formalized here using a distinction between fundamental and secondary knowledge. Secondary knowledge spills over imperfectly across fundamental technologies, and the historical path of technological development is a central determinant of endogenous rates of technological change. Economic growth depends on the extent of secondary knowledge accumulation, and leapfrogging in cross-country levels of income per capita may occur.

TI Productivity Growth, Convergence and Trade in a Panel of Manufacturing Industries. **AU** Cameron, Gavin; Proudman, James; Redding, Stephen.

Reilly, Frank K.

PD January 1999. **TI** Including Defaulted Bonds in the Capital Market Asset Spectrum. **AU** Reilly, Frank K.; Wright, David J.; Altman, Edward I. **AA** Reilly: University of Notre Dame. Wright: University of Wisconsin, Parkside. Altman: New York University. **SR** New York University, Salomon Center Working Paper: S/99/02; 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** G11, G12, G32. **KW** Defaulted Debt. Capital Markets. Bonds. High Yield Debt.

AB The purpose of this paper is to examine defaulted debt as an asset class and as a component of the overall debt-equity capital market. The intent is to determine where defaulted debt fits in terms of risk-return relative to other assets, how it relates to other asset classes, and how it has changed over time in terms of its risk and its relationship to other assets. A comparison of the defaulted debt's risk-return characteristics and correlations with other financial assets indicates that while

defaulted debt is distinct from investment grade bonds, it displays many characteristics that are similar to other high risk assets such as small cap stocks and lower rated high yield debt. An intertemporal analysis of the risk and correlation of defaulted debt relative to other asset classes indicates both patterns of similar changes and time periods of unique behavior.

Remolona, Eli M.

TI What was the Market's View of UK Monetary Policy? Estimating Inflation Risk and Expected Inflation with Indexed Bonds. **AU** Wickens, Michael R.; Remolona, Eli M.; Gong, Frank F.

Rendu, Christel

TI Japan's Stagnant Nineties: A Vector Autoregression Retrospective. **AU** Ramaswamy, Ramana; Rendu, Christel.

Renner, Elke

TI The Moonlighting Game. **AU** Abbink, Klaus; Irlenbusch, Bernd; Renner, Elke.

Renstrom, Thomas

TI What is Wrong with the Flat Tax? **AU** Sinclair, P. J. N.; Renstrom, Thomas.

Repullo, Rafael

PD January 1999. **TI** Entrepreneurial Moral Hazard and Bank Monitoring: A Model of the Credit Channel. **AU** Repullo, Rafael; Suarez, Javier. **AA** CEMFI. **SR** Centre for Economic Policy Research Discussion Paper: 2060; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 dollars or 8 dollars or 8 euros. **JE** D82, E44, E51, E52, G32. **KW** Monetary Transmission. Credit Markets. Bank Monitoring. Interest Rate Ceilings. Capital Requirements.

AB This paper develops a model of the choice between bank and market finance by entrepreneurial firms that differ in the value of their net worth. The monitoring associated with bank finance ameliorates a moral hazard problem between the entrepreneurs and their lenders. The model is used to analyze the different strands of the credit view of the transmission of monetary policy. In particular, we derive the empirical implications of a broad credit channel, and compare them to those obtained when the model is extended to incorporate some elements of the bank lending channel.

Restoy, Fernando

TI Can Output Explain the Predictability and Volatility of Stock Returns? **AU** Rodriguez, Rosa; Restoy, Fernando; Pena, J. Ignacio.

TI Can Fundamentals Explain Cross-Country Correlations of Asset Returns. **AU** Rodriguez, Rosa; Restoy, Fernando.

Ritzberger, Klaus

PD June 1997. **TI** Perfect Recall. **AA** Institute for Advanced Studies, Vienna. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/409; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 23. **PR** no charge. **JE** C72. **KW** Extensive Form Games. Perfect Recall. Rationality. Information Sets.

AB This paper considers characterizations of perfect recall in extensive form games. It is shown that perfect recall can be expressed entirely in terms of the choice partition without any reference to any information sets. When information sets are taken into account, it is decomposable into an ordering of information sets, a memory requirement, and the player's inability to deduce extra information from her own past choices. A conclusion of this decomposition is that perfect recall is not necessarily an implication of rationality, because its first part is not implied by rationality. But if information sets are partially ordered, then it can be argued that perfect recall indeed follows from rationality. And this condition is weaker than conditions to the same effect in the previous literature.

TI Strategic Pricing, Signalling and Costly Information Acquisition. **AU** Bester, Helmut; Ritzberger, Klaus.

Rizzo, Rosario C.

TI Alternative Tests for Time Series Dependence Based on Autocorrelation Coefficients. **AU** Levich, Richard M.; Rizzo, Rosario C.

Robert, Christian P.

PD February 1999. **TI** Bayesian Inference in Hidden Markov Models through Jump Markov Chain Monte Carlo. **AU** Robert, Christian P.; Ryden, Tobias; Titterington, David. **AA** Robert: CREST-INSEE. Ryden: Lund University. Titterington: University of Glasgow. **SR** Document de Travail du CREST: 9910; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 19. **PR** no charge. **JE** C11, C15, C22, G12. **KW** Bayesian Inference. Hidden Markov. Model Selection. Reversible Jumps.

AB Hidden Markov models are an extension of mixture models providing a flexible class of models exhibiting dependence and a possibly large degree of variability. This paper demonstrates how jump Markov chain Monte Carlo techniques can be used to estimate the parameters as well as the number of components of a hidden Markov model in a Bayesian framework. The authors employ a mixture of zero mean normal distributions as their main example and apply this model to three sets of data from finance, meteorology and geology, and physics, respectively.

Roberts, John M.

PD October 1998. **TI** Inflation Expectations and the Transmission of Monetary Policy. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/43; 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** D84, E31, E52. **KW** Inflation Expectations. Monetary Policy. Rational Expectations.

AB New Keynesian models with sticky prices and rational expectations have a difficult time explaining why reducing inflation usually requires a recession. An explanation for the costliness of reducing inflation is that inflation expectations are less than perfectly rational. To explore this possibility, I estimate the degree of nonrationality implicit in two survey measures of inflation expectations. I find that the surveys reflect an intermediate degree of rationality: Expectations are neither

perfectly rational nor as unsophisticated as simple autoregressive models would suggest. I also find that a structural New Keynesian model with expectations formation based on the survey results is able to match closely the empirical costs of reducing inflation.

Robertson, Donald

PD October 1998. **TI** The Good News and the Bad News about Long-Run Stock Market Returns. **AU** Robertson, Donald; Wright, Stephen. **AA** University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9822; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 25. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C32, C52, E44, G14. **KW** Stock Prices. Cointegration. Vector Autoregression. Tobin's q.

AB If stock prices followed a random walk, uncertainty about future stock prices would be so great that the observed bias towards equities in long-term investment portfolios would be surprising. The good news is that if, as a growing body of research suggests, there is even a weak tendency for stationary valuation indicators to predict future stock prices, long-run returns can become markedly more predictable. This is illustrated in a cointegrating vector autoregression (VAR), with Tobin's q as one of the cointegrating relations. The bad news is a corollary of the good news: q and most other indicators point to massive overvaluation at the end of 1997, and hence the prospect of weak stock prices well into the next century.

Robin, Jean-Maie

TI Estimation in Large and Disaggregated Demand Systems: An Estimator for Conditionally Linear Systems. **AU** Blundell, Richard; Robin, Jean-Maie.

TI Equilibrium Search with Productivity Dispersion: Theory and Estimation. **AU** Bontemps, Christian; Robin, Jean-Maie; Van Den Berg, Geraiol.

PD September 1998. **TI** Random or Balanced Matching: An Equilibrium Search Model with Endogenous Capital and Two-Sided Search. **AU** Robin, Jean-Maie; Roux, Sebastien. **AA** Robin: LEA-INRA and CREST-INSEE. Roux: CREST-INSEE. **SR** Document de Travail du CREST: 9838; CREST-Mme Guedj, 15 Boulevard Gabriel Peri, 92245 Malakoff Cedex, France. Website: www.ensae.fr/crest. **PG** 68. **PR** no charge. **JE** J21, J41, J64, O14. **KW** Equilibrium Search. Matching. Training Costs. Wage Determination.

AB This paper extends the equilibrium search models of Burdett and Mortensen (1998), Burdett and Vishwanath (1998) and Mortensen and Vishwanath (1994) to allow for endogenous matching and endogenous capital determination. In this model, in order to attract workers, firms must produce a specific hiring effort which is costly (cost of advertising posts, training new employees). Workers then draw firms in proportion to their hiring effort. As in Acemoglu and Shimer (1997), upon entering the market, firms must choose a determined amount of capital which is then fixed forever and indexes labor productivity. The paper characterizes the equilibrium and derives expressions for the endogenous equilibrium wage distribution. With convex or concave hiring costs, the Nash equilibrium of the equilibrium search game is such that all operating firms must choose a different amount of capital from a continuous distribution, and a one-to-one mapping exists between capital and wages. The authors estimate the model using French firm data and simulate various tax reforms. A reform which transfers labor taxes from low wages to high wages, by reducing the monopsony power of large firms, is shown to be welfare improving: unemployment is reduced, and total output is increased as is government revenue.

Robson, Paul

PD June 1998. **TI** Low Pay in Europe and the USA: Evidence from Harmonised Data. **AU** Robson, Paul; Dex, Shirley; Wilkinson, S. Frank; Salido, Olga. **AA** Robson, Dex, and Wilkinson: University of Cambridge. Salido: CSIC, Madrid, Spain. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 87; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 20. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** J16, J31, J38, J51, J64. **KW** Low Pay. Female Unemployment. Collective Bargaining. Wages. Minimum Wages.

AB This paper calculates the extent of low pay in Britain, Germany, Luxembourg, Spain and the USA using harmonized data based on nationally representative household panel studies. Countries' systems of collective bargaining and minimum wage regimes are related to distributions of low pay by industry, firm size, occupation, type of contract, public-private sector and gender. Strong collective bargaining regimes and minimum wages appear to help reduce the percentage of low paid workers, but women, and especially part-time women employees, benefit much less than men.

PD June 1998. **TI** Low Pay and Social Exclusion: A Cross-National Comparison. **AU** Robson, Paul; Dex, Shirley; Wilkinson, S. Frank. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 91; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. **PG** 17. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** J16, J31, J51, J71. **KW** Low Pay. Social Exclusion. Female Unemployment. Wages.

AB Using harmonized household panel data, cross-tabulations and multivariate analysis, the paper examines whether being low paid is associated with the same set of supply-side and household characteristics in five countries, Britain, Luxembourg, Germany, Spain and the USA. Characteristics investigated include age, education, marital status, children, lone parent status, household type, employment status of spouse, and housing tenure. Similarities and differences across countries and gender groups are identified.

Rockinger, Michael

TI Reading the Smile: The Message Conveyed by Methods which Infer Risk Neutral Densities. **AU** Jondeau, Eric; Rockinger, Michael.

TI Reading Interest Rate and Bond Futures Options' Smiles Around the 1997 French Snap Election. **AU** Jondeau, Eric; Rockinger, Michael; Coutant, Sophie.

Rodriguez, Rosa

PD October 1998. **TI** Can Output Explain the Predictability and Volatility of Stock Returns? **AU** Rodriguez, Rosa; Restoy, Fernando; Pena, J. Ignacio. **AA** Rodriguez: Universidad Europea de Madrid. Restoy: Banco de Espana. Pena: Universidad Carlos III de Madrid. **SR** Centre for Economic Policy Research Discussion Paper: 1995; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** G12, G14. **KW** Isoelastic Preferences. Asset Returns. Real Activity. Volatility. Market Efficiency.

AB This paper studies the ability of relatively standard equilibrium asset pricing models to explain two important empirical regularities of asset returns extensively documented in the literature: i) returns can be predicted by a set of macro variables; and ii) returns are very volatile. Those empirical regularities are relevant because they have often been used to reject market efficiency. The authors make use of the approximation technology in the solution of intertemporal asset pricing models recently developed by Campbell (1993) in the form suggested by Restoy and Weil (1997). The authors obtain evidence from eight OECD economies using both quarterly and annual observations. Equilibrium models seem generally to find fewer difficulties in explaining the volatility of returns than their predictability for general output processes. In the case of the United States, for annual frequencies the observed predictability and volatility of asset returns are broadly compatible with the predictions of equilibrium models.

PD November 1998. **TI** Can Fundamentals Explain Cross-Country Correlations of Asset Returns. **AU** Rodriguez, Rosa; Restoy, Fernando. **AA** Rodriguez: Universidad Europea de Madrid. Restoy: Banco de Espana. **SR** Centre for Economic Policy Research Discussion Paper: 1996; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 24. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E44, G12, G15. **KW** Asset Pricing. Cross-Country Correlations. National Returns. Capital Markets.

AB In the last few years, the empirical literature has documented that existing correlations between national returns are higher than correlations between the national growth rates of fundamental variables. In this paper we study the ability of intertemporal asset pricing models to explain cross-country correlations of national returns. When capital markets are assumed to be perfectly integrated, an intertemporal general equilibrium model is able to explain the obtained covariability of domestic asset returns but at the expense of generating too little variability in those returns. Results improve considerably if a partial, rather than a general, equilibrium version of the fully integrated capital market model is employed and the analysis is continued to the last two decades in which capital flows are more liberalized. Then, both domestic variability and cross-country covariability of returns can be explained by using single international discount-factor of domestic aggregate dividends.

Rodriguez-Planas, Nuria

PD February 1999. **TI** Asymmetric Information in the Labor Market: New Evidence on Layoffs, Recalls, and Unemployment. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/09; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 59. **PR** no charge. **JE** D82, J31, J64. **KW** Laid-Off Workers. Signaling Unemployment. Wages. Asymmetric Information.

AB In the United States, many laid-off workers are recalled to their former employer. I develop an asymmetric information model of layoffs in which high productivity workers are more likely to be recalled and may choose to remain unemployed rather than accept a low-wage job. In this case, unemployment can serve as a signal of productivity, and unemployment duration may be positively related to post-laid-off wages even among workers who are not recalled. In contrast, since workers whose plant closed cannot be recalled, longer unemployment duration should not have a positive signaling benefit for such workers. Analysis of the data from January 1988-1992 Displaced Workers Supplements to the Current Population Survey reveals that the wage/unemployment duration relation differs between the two groups in the predicted way, and finds evidence consistent with asymmetric information in the U.S. labor market.

Roffia, Barbara

TI Maximum Sustainable Government Debt in the Overlapping Generations Model. **AU** Rankin, Neil; Roffia, Barbara.

Rohe, Andre

TI Computing Minimum-Weight Perfect Matchings. **AU** Cook, William; Rohe, Andre.

Rolle, Jean Daniel

TI The National Origin of the Ownership Advantage of Firms. **AU** Nachum, Lilach; Rolle, Jean Daniel.

Roller, Lars-Hendrik

TI Union Power and Product Market Competition: Evidence from the Airline Industry. **AU** Neven, Damien J.; Roller, Lars-Hendrik; Zhang, Zhentang.

Rose, Andrew K.

TI Understanding the Home Market Effect and the Gravity Equation: The Role of Differentiating Goods. **AU** Markusen, James R.; Rose, Andrew K.; Feenstra, Robert C.

Rosen, Harvey S.

TI Where Does the Money Come From? The Financing of Small Entrepreneurial Enterprises. **AU** Fluck, Zsuzsanna; Holtz-Eakin, Douglas; Rosen, Harvey S.

Rosenkranz, Stephanie

PD October 1998. **TI** To Reveal or Not to Reveal: The Case of Research Joint Ventures with Two-Sided Incomplete Information. **AA** Wissensschaftszentrum, Berlin. **SR** Centre for Economic Policy Research Discussion Paper: 1985; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D82, L13, L14, O31, O34. **KW** Research Joint Ventures. Incomplete Information. Spillovers. Second- Price Auction. Cooperation.

AB Firms' incentives to form research joint ventures (RJVs)

are analyzed in an incomplete information framework when technological know-how is private information. Firms first decide on cooperation and information revelation and then compete for a patent. Provided that spillovers exist in the case of unilateral revelation of know-how, it can be shown that non-cooperation is always an equilibrium. If competition is in a second- price auction with positive minimum R&D requirements this equilibrium is unique for high spillovers. Cooperation can occur for low spillovers. For certain parameters there exists an equilibrium in which only firms with low know-how cooperate.

Roubini, Nouriel

PD September 1998. **TI** Growth Effects of Income and Consumption Taxes. **AU** Roubini, Nouriel; Milesi-Ferretti, Gian Maria. **AA** Roubini: Stern School of Business. Milesi-Ferretti: International Monetary Fund. **SR** Centre for Economic Policy Research Discussion Paper: 1979; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E62, H24, H25, J24, O41. **KW** Economic Growth. Income Taxation. Consumption Taxation. Leisure. Human Capital.

AB The effects of income and consumption taxation are examined in the context of models in which the growth process is driven by the accumulation of human and physical capital. The different channels through which these taxes affect economic growth are discussed. It is shown that the effects of taxation on growth depend crucially on whether the sector producing human capital is a market sector, on the technology for human capital accumulation and on the specification of the leisure activity. In general, the taxation of factor incomes (human and physical capital) is growth-reducing, while the effects of a consumption tax depend on the specification of leisure. The paper also derives implications for the growth-maximizing choice of tax instruments.

Roux, Sebastien

TI Random or Balanced Matching: An Equilibrium Search Model with Endogenous Capital and Two-Sided Search. **AU** Robin, Jean-Maie; Roux, Sebastien.

TI Within-Firm Seniority Structure and Firm Performance. **AU** Kramarz, Francis; Roux, Sebastien.

Rowthorn, Robert

PD March 1999. **TI** Unemployment, Capital-Labor Substitution, and Economic Growth. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/43; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 27. **PR** not available. **JE** E22, E23, E24, E25, O40. **KW** Unemployment. Capital. Elasticity of Substitution. Bargaining. Technological Progress.

AB This paper discusses the influence of economic growth on the equilibrium unemployment rate (NAIRU). It examines how income distribution and the NAIRU are influenced by capital formation, technical progress, and labor force expansion, and how these factors' impact depends on the elasticity of substitution between capital and labor. The paper distinguishes between the short-run NAIRU when capital stock is exogenous, and the long-run NAIRU when it is endogenous. It also considers how the analysis must be modified to take into account Keynesian ideas concerning the role of aggregate demand. It concludes that unless the capital stock grows in line with labor supply in efficiency units, the short-run NAIRU will increase, reducing the scope for demand stimulation.

Rowthorn, Robert E.

TI De-Industrialization: The Case of Iceland. **AU** Bender, Inglolfur; Rowthorn, Robert E.

Rudebusch, Glenn D.

TI Policy Rules for Inflation Targeting. **AU** Svensson, Lars E. O.; Rudebusch, Glenn D.

Ryden, Tobias

TI Bayesian Inference in Hidden Markov Models through Jump Markov Chain Monte Carlo. **AU** Robert, Christian P.; Ryden, Tobias; Titterington, David.

Sacheti, Sandeep

TI Dynamics and Limited Cooperation in International Environmental Agreements. **AU** Karp, Larry S.; Sacheti, Sandeep.

Sachs, Jeffrey D.

TI Strengthening India's Strategy for Economic Growth. **AU** Bajpai, Nirupam; Sachs, Jeffrey D.

Sack, Brian

PD March 1998. **TI** Does the Fed Act Gradually? A VAR Analysis. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/17; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 29. **PR** no charge. **JE** E43, E58. **KW** Federal Funds Rate. Central Banks. Interest Rate Smoothing. Uncertainty.

AB This paper investigates whether gradual movements in the federal funds rate can be explained by the dynamic structure of the economy and the uncertainty that the Fed faces regarding this structure, without recourse to including an ad-hoc interest rate smoothing argument in the objective function of the Fed. The analysis calculates the optimal funds rate policy given the structural form of the economy estimated in a VAR. In the absence of parameter uncertainty, the calculated policy responds more aggressively to changes in the economy than the observed policy, resulting in a substantially higher volatility of the funds rate than observed. Parameter uncertainty, however, limits the willingness of the Fed to deviate from the policy rule that has been previously implemented. Because the Fed has historically smoothed interest rates, the calculated policy under parameter uncertainty can account for a considerable portion of the gradualism observed in funds rate movements.

PD July 1998. **TI** Uncertainty, Learning, and Gradual Monetary Policy. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/34; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 34. **PR** no charge. **JE** D83, E43, E52, E58. **KW** Monetary Policy. Policy Rules. Interest Rate Smoothing. Learning.

AB This paper argues that interest-rate smoothing may be optimal when the effect of monetary policy is uncertain. A

model is presented in which the Federal Reserve rationally learns about the policy multiplier by observing the reaction of the economy to recent choices of the interest rate. As a result of this learning process, the Fed faces greater uncertainty about the impact of its policy as it moves the interest rate away from its previous level. The optimal policy response to macroeconomic developments therefore involves gradual adjustment of the interest rate over a period of time during which the Fed is learning about the effect of its policy, consistent with the smoothness of interest rate movements found in estimated policy rules. The model also suggests that periods of active interest rate movements, by allowing the Fed to learn more effectively, may be followed by a more aggressive policy rule.

Sadoulet, Elisabeth

TI Determinants of Mexico-U.S. Migration: The Role of Household Assets and Environmental Factors. **AU** de Janvry, Alain; Sadoulet, Elisabeth; Davis, Benjamin; Seidel, Kevin; Winters, Paul.

TI Social and Environmental Consequences of the Mexican Reforms: Common Pool Resources in the Ejido Sector. **AU** Key, Nigel; Munoz-Pina, Carlos; de Janvry, Alain; Sadoulet, Elisabeth.

TI The Changing Role of the State in Latin American Land Reforms. **AU** de Janvry, Alain; Sadoulet, Elisabeth; Wolford, Wendy.

Sadrieh, Abdolkarim

TI Adaptive Learning versus Punishment in Ultimatum Bargaining. **AU** Abbink, Klaus; Bolton, Gary E.; Sadrieh, Abdolkarim; Tang, Fang-Fang.

TI RatImage 3.30. Updating Addendum to the Research Assistance Toolbox for Computer-Aided Human Behavior Experiments. **AU** Abbink, Klaus; Sadrieh, Abdolkarim.

TI Teams Take the Better Risks. **AU** Kuon, Bettina; Mathauschek, Barbara; Sadrieh, Abdolkarim.

Saint-Martin, Anne

TI A Computable General Equilibrium Model of France: Julien 4. **AU** Laffargue, Jean-Pierre; Saint-Martin, Anne.

Salanie, Bernard

TI Testing for Asymmetric Information in Insurance Markets. **AU** Chiappori, Pierre-Andre; Salanie, Bernard.

Salido, Olga

TI Low Pay in Europe and the USA: Evidence from Harmonised Data. **AU** Robson, Paul; Dex, Shirley; Wilkinson, S. Frank; Salido, Olga.

Samiei, S. Hossein

TI Analytical and Numerical Solution of Finite-Horizon Nonlinear Rational Expectations Models. **AU** Binder, Michael; Pesaran, M. Hashem; Samiei, S. Hossein.

Samuelson, Larry

TI Altruists, Egoists and Hooligans in a Local Interaction Model. **AU** Eshel, Illan; Samuelson, Larry; Shaked, Avner.

San Martin, Ernesto

TI Bayesian Specification and Identification of a Class of Mixture Models. **AU** Mouchart, Michel; San Martin, Ernesto.

Sandmann, Klaus

PD January 1997. **TI** Log-Normal Interest Rate Models: Stability and Methodology. **AU** Sandmann, Klaus; Sondermann, Dieter. **AA** Sandmann: University of Mainz. Sondermann: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/398; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 9. **PR** no charge. **JE** E43, G13. **KW** Term Structure Models. Lognormal Interest Rate. Eurodollar Futures. Hedging.

AB The lognormal distribution assumption for the term structure of interest is the most natural way to exclude negative spot and forward rates. However, imposing this assumption on the continuously compounded interest rate has a serious drawback: rates explode and expected rollover returns are infinite even if the rollover period is arbitrarily short. As a consequence such models cannot price one of the most widely used hedging instruments on the Euromoney market, namely the Eurodollar future contract. The purpose of this paper is twofold: First to show that the problems with lognormal models result from modeling the wrong rate, namely the continuously compounded rate. If instead one models the effective annual rate these problems disappear. Second to give a survey on recent work on lognormal term structure models for effective or nominal forward rates.

TI Asian Exchange Rate Options under Stochastic Interest Rates: Pricing as a Sum of Delayed Payment Options. **AU** Nielsen, Jorgen Aase.; Sandmann, Klaus.

Satchell, Stephen E.

TI Modelling Emerging Market Risk Premia using Higher Moments. **AU** Hwang, Soosung; Satchell, Stephen E.

TI Global Equity Styles and Industry Effects: Portfolio Construction via Dummy Variables. **AU** Kuo, George W.; Satchell, Stephen E.

TI Utility Functions with Parameters Depending on Initial Wealth. **AU** Pedersen, Christian C.; Satchell, Stephen E.

TI Statistical Properties of the Sample Semi-Variance, with Applications to Emerging Markets' Data. **AU** Bond, Shaun A.; Satchell, Stephen E.

Saunders, Anthony

PD January 1999. **TI** Price Formation in the OTC Corporate Bond Markets: A Field Study of the Inter-Dealer Market. **AU** Saunders, Anthony; Srinivasan, Anand; Walter, Ingo. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/07; 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** D43, D44, G23, G24, L13. **KW** Corporate Bonds. Auctions. Market Structure. Bond Dealers.

AB This is the first exploratory field study of the U.S. inter-dealer OTC corporate bond market. The authors do this by

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analyzing the trades of a major bond dealer and through interviews with personnel at the trading desk of this dealer. They document the competitive structure of the market in terms of the number of active dealers, the mechanism used to facilitate trades etc. They find that the mechanism of trading closely resembles a first price sealed bid auction. The number of active dealers is quite small -- only nine dealers account for a large fraction of the trades The authors examine potential differences between the best and second best bid in a given trade. Their measure of competition indicates that competition is highest in US investment grade corporate bonds and lowest in junk bonds. The authors also examine the effect of size of the trade on this measure of competition.

Scaillet, Oliver

TI Variance Optimal Cap Pricing Models. **AU** Laurent, Jean-Paul; Scaillet, Oliver.

Schankerman, Mark

PD December 1998. **TI** Patent Suits: Do They Distort Research Incentives? **AU** Schankerman, Mark; Lanjouw, Jean O. **AA** Schankerman: London School of Economics and EBRD. Lanjouw: Yale University. **SR** Centre for Economic Policy Research Discussion Paper: 2042; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** K41, O31, O34. **KW** Patents. Litigation. Research and Development. Incentives. Innovation.

AB This paper shows that the process of enforcing patent rights both dilutes and distorts Research and Development incentives. The authors examine the characteristics of litigated patents by combining, for the first time, information about patent case filings from the U.S. district courts with detailed data from the U.S. Patent and Trademark Office. By comparing filed cases to a random sample of U.S. patents from the same cohorts and technology areas, the authors show that case filings are much more common in some technology areas, and also when (i) innovations are more valuable, (ii) they appear to form the basis of a sequence of technologically-linked innovations held by the patentee, (iii) there is domestic ownership, and (iv) they are owned by individuals, except where others are active in the same technology area making reputation important. The authors use this empirical evidence to examine hypotheses about the determinants of patent suits.

TI Competition, Entry, and the Social Returns to Infrastructure in Transition Economies. **AU** Aghion, Philippe; Schankerman, Mark.

Scher, Mark J.

PD January 1999. **TI** Bank-Firms Cross-Shareholding: Is It Really Winding Down? -- Recent Evidence from Japan. **AA** New York University and International Economic Relation, United Nations. **SR** New York University, Salomon Center Working Paper: S/99/06; 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** G21, G32. **KW** Banking. Cross-Shareholding. Capital Adequacy. Basel Committee. Japan.

AB It has been a common practice in Japan for pairs of firms to exchange equity shares, a practice called "cross-shareholding." This paper focuses on the problems relating to bank-firm cross-held shares. The shares cross-held by banks and firms have become a matter of grave concern because most Japanese banks now depend on the diminishing value of stocks held in their portfolios to maintain capital adequacy standards. With the dramatic decline in the Tokyo stock market over the past decade, Japanese banks are having great difficulty in maintaining the Basel Committee standards of capital requirements necessary for them to operate internationally. The greatest part of bank-held shares are with the bank's client firms. It would appear that the fortunes of banks and firms are lashed together. It is therefore important that the prevalence of bank-firm cross-shareholding, which for many years Japanese leaders have claimed was winding down, be examined.

Schlag, Karl H.

TI Loss of Commitment? An Evolutionary Analysis of Bagwell's Example. **AU** Oechssler, Jorg; Schlag, Karl H.

TI Sophisticated Imitation in Cyclic Games. **AU** Hofbauer, Josef; Schlag, Karl H.

TI Updating Strategies Through Observed Play Optimization Under Bounded Rationality. **AU** Cressman, R.; Schlag, Karl H.

Schlaghoff, Jens

PD February 1997. **TI** Improved Results for Competitive Group Testing. **AU** Schlaghoff, Jens; Triesch, Eberhard. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 97858; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 14. **PR** no charge. **JE** C44, C60. **KW** Competitive Algorithm. Group Testing. Strong Competitiveness.

AB We consider algorithms for group testing problems when nothing is known in advance about the number of defectives. Du and Hwang suggested to measure the quality of such algorithms by its so-called (first) competitive ratio (see the introduction). Later, Du and Park suggested a second kind of competitive ratio. For each kind of competitiveness, we improve the best known bounds: In the first case, from 1.65 to 1.5 + e, and in the second from 16 to 4.

Schloegl, Erik

PD November 1997. **TI** A Tractable Term Structure Model with Endogenous Interpolation and Positive Interest Rates. **AU** Schloegl, Erik; Schloegl, Lutz. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/396; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 35. **PR** no charge. **JE** C20, E43, G12, G13. **KW** Term Structure Models. Endogenous Interpolation. Gauss-Markov Models. Interest Rates.

AB This paper presents the one- and the multifactor versions of a term structure model in which the factor dynamics are given by Cox/Ingersoll/Ross (CIR) type "square root" diffusions with piecewise constant parameters. The model is fitted to initial term structures given by a finite number of data points, interpolating endogenously. Closed form and near-closed form solutions for a large class of fixed income contingent claims are derived in terms of a noncentral chi-square distribution whose

noncentrality parameter is in turn noncentral chi- square distributed. Implementation details on this distribution are given in the appendix.

Schloegl, Lutz

TI A Tractable Term Structure Model with Endogenous Interpolation and Positive Interest Rates. **AU** Schloegl, Erik; Schloegl, Lutz.

Schmidt, Christoph M.

PD January 1999. **TI** Persistence and the German Unemployment Problem: Empirical Evidence on German Labour Market Flows. **AA** University of Heidelberg. **SR** Centre for Economic Policy Research Discussion Paper: 2057; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 64. **PR** 5 dollars or 8 dollars or 8 euros. **JE** E24, J21, J63, J64. **KW** Transitions. Unemployment Duration. Labor Markets. Labor Force. Germany.

AB Using a retrospective monthly calendarium of individuals' major economic activities, this paper characterizes the monthly employment and unemployment rates and the monthly transition intensities between the states of employment, unemployment, and out-of-the-labor-force for the German labor market between January/February 1983 and November/December 1994. The analysis provides a detailed portrait for demographic cells defined by gender, three age groups, and three education groups. Overall, the German labor market displays a high level of persistence, but important differences exist across demographic groups. By contrast, almost no changes can be observed across time, apart from a drastic decrease of male job finding rates during the early 1990's. When compared to France, the German labor market does not appear to be excessively rigid, although the differences with the fluid U.S. labor market are very substantial.

PD January 1999. **TI** Active Labour Market Policies in Poland: Human Capital Enhancement, Stigmatization or Benefit Churning? **AU** Schmidt, Christoph M.; Lehmann, Hartmut; Kluve, Jochen. **AA** Schmidt and Kluve: University of Heidelberg. Lehmann: Katholieke Universiteit Leuven. **SR** Centre for Economic Policy Research Discussion Paper: 2059; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 56. **PR** 5 dollars or 8 dollars or 8 euros. **JE** C41, J24, J41, J64, J68. **KW** Matching. Unemployment. Human Capital. Public Policy. Benefit Churning.

AB This paper provides micro-econometric evidence on the effectiveness of Active Labor Market Policies in Poland. The authors sketch the theoretical framework of matching estimators as a substitute for randomization in labor market programs. Using retrospective data from the 18th wave of the Polish Labor Force Survey they implement a conditional difference-in-differences matching estimator of treatment effects. Treatment and control groups are matched over individual observable characteristics and pre-treatment labor market histories to minimize bias from unobserved heterogeneity. Considering as the outcome a multinomial variable of labor market status, an important result suggests that training of men and women has a positive effect on the employment probability. For men public works and intervention works have negative treatment effects, while participation in intervention works does not affect women's employment probabilities. The authors attribute the negative treatment effects for men to benefit churning rather than to stigmatization of intervention and public works participants.

Schmitt, Nicolas

TI Exchange Rate Pass-Through and Dynamic Oligopoly: An Empirical Investigation. **AU** Gross, Dominique M.; Schmitt, Nicolas.

Schmitt-Grohe, Stephanie

PD March 1998. **TI** Endogenous Business Cycles and the Dynamics of Output, Hours, and Consumption. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/19; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 34. **PR** no charge. **JE** E21, E24, E32. **KW** Business Cycles. Expectations. Fluctuations. Returns to Scale.

AB This paper studies the business-cycle fluctuations predicted by a two-sector endogenous-business-cycle model with sector-specific external increasing returns to scale. It focuses on aspects of actual fluctuations that have been identified both as defining features of the business cycle and as ones that standard real-business-cycle models cannot explain: the autocorrelation function of output growth, the impulse response function of output to demand shocks, and the forecastable movements of output, hours, and consumption. For empirically realistic calibrations of the degree of sector-specific external returns to scale, the results suggest that endogenous fluctuations do not provide the dynamic element that is missing in existing real-business-cycle models.

TI Monetary Policy and Multiple Equilibria. **AU** Benhabib, Jess; Schmitt-Grohe, Stephanie; Uribe, Martin.

Schnitzer, Monika

PD November 1998. **TI** On the Role of Bank Competition for Corporate Finance and Corporate Control in Transition Economies. **AA** University of Munich. **SR** Centre for Economic Policy Research Discussion Paper: 2013; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D43, G21, G34, L13, P31. **KW** Transition Economies. Bank Competition. Corporate Finance. Screening. Restructuring.

AB Banks play a central role in financing and monitoring firms in transition economies. This study examines how bank competition affects the efficiency of credit allocation; monitoring of firms; and the firms' restructuring effort. In our model, banks compete to finance an investment project with uncertain return. By screening the firm a bank learns about its profitability. Surprisingly, it is found that an increase in bank competition need not reduce a bank's screening incentive even though it lowers its expected profits. Furthermore, competition has a positive impact on the firms restructuring efforts. This suggests a positive role for bank competition in transition economies.

PD December 1998. **TI** Bank Competition and Enterprise Restructuring in Transition Economies. **AA** University of

Munich. **SR** Centre for Economic Policy Research Discussion Paper: 2045; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D43, G21, G34, L13, P31. **KW** Transition Economies. Bank Competition. Screening. Restructuring. Market Entry.

AB We investigate how bank competition affects the efficiency of credit allocation, using a model of spatial competition. Our analysis shows that bad loans are more likely the larger the number of banks competing for customers. We study further how many banks will be active if market entry is not regulated. Free entry can induce too much entry and thus too many bad loans compared to the social optimum. Finally, we analyze how bank competition affects the firms' restructuring effort. We find that restructuring has positive externalities that give rise to multiple equilibria, with either much or little restructuring activity.

PD December 1998. **TI** Inside Versus Outside Financing and Product Market Competition. **AU** Schnitzer, Monika; Wambach, Achim. **AA** University of Munich. **SR** Centre for Economic Policy Research Discussion Paper: 2049; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D43, G32, L13, L22. **KW** Corporate Finance. Bertrand Competition. Financing Policy. Financial Structure. Product Market Competition.

AB This paper investigates the interaction of firms' financial structure and their competitive behavior on oligopolistic product markets. We consider risk-averse entrepreneurs who produce with uncertain production costs. To reduce their exposure to risk they can sell stocks to risk- neutral outside-investors. We show that in equilibrium the entrepreneurs prefer not to fully transfer this risk to outside-financiers because it reduces the competitive pressure on the product market. Furthermore, we discuss how the optimal financial structure reacts to variations in entrepreneurs' risk aversion, the level of cost uncertainty and the number of competitors.

Schonbucher, Phillip J.

PD May 1999. **TI** A Market Model for Stochastic Implied Volatility. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/453; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 22. **PR** no charge. **JE** G13. **KW** Option Pricing. Stochastic Volatility. Smile Effect. Term Structure. Strike Structure.

AB In this paper a stochastic volatility model is presented that directly prescribes the stochastic development of the implied Black- Scholes volatilities of a set of given standard options. Thus the model is able to capture the stochastic movements of a full term structure of implied volatilities. The conditions are derived that have to be satisfied to ensure absence of arbitrage in the model and its numerical implementation is discussed.

Schotman, Peter C.

PD December 1998. **TI** Direct Estimation of the Risk Neutral Factor Dynamics of Affine Term Structure Models. **AU** Schotman, Peter C.; Bams, Dennis. **AA** Schotman: Maastricht University. Bams: Limburg Institute of Financial Economics. **SR** Centre for Economic Policy Research Discussion Paper: 2034; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** C33, C52, E43, G13. **KW** Affine Models. Panel Data. Term Structure. Interest Rates. Factor Models.

AB This paper proposes a panel data framework for tests of affine models of the term structure of interest rates which cover equilibrium (or endogenous) models as well as extended (or exogenous, evolutionary) models. The econometric model pools yield curve data for different moments in time. Since each cross-sectional yield curve only depends on the risk neutral factor dynamics, the estimator does not involve any assumptions on the price of risk, or on actual interest rate dynamics. In the empirical application one and two factor Gaussian models are tested on U.S. interest rate data. The main empirical results are: (i) that a two-factor model cannot be rejected; (ii) that mean reversion is highly significant; and (iii) that the extended models are "over- differenced".

Schuermann, Til

TI Pitfalls and Opportunities in the Use of Extreme Value Theory in Risk Management. **AU** Diebold, Francis X.; Schuermann, Til; Stroughhair, John D.

Scott, Andrew

PD February 1999. **TI** Fickle Investors: An Impediment to Growth? **AU** Scott, Andrew; Uhlig, Harald. **AA** Scott: London Business School. Uhlig: Center Tilburg University. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 415; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 30. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** F32, F41, F43, G15. **KW** Capital Accounts. Liberalization. Endogenous Growth. External Financing.

AB The aim of this paper is to construct theoretical models which help to shed light on the recent criticisms of volatile investment flows. We do not make any empirical attempt to establish the existence or gauge the importance of the adverse effects of volatile investment flows, nor do we make any implicit claims regarding the role of such flows in recent exchange rate crises. Instead we simply assume the existence of fickle outside investors and examine the consequences for the economy in the context of two partial equilibrium endogenous growth models. In our first model the scale of fickle outside investment funds traces out a mean-variance trade-off for the growth rate of the economy. In particular, the volatility of these funds dissuades risk averse agents from risky entrepreneurial activities. This result opens up the possibility that some regulation of outside investment may increase growth. Our second model involves increasing returns and multiple equilibria. In the context of this model fickle investor behavior can have very persistent and substantial effects on both output growth and volatility.

PD February 1999. **TI** Fickle Investors: An Impediment to Growth? **AU** Scott, Andrew; Uhlig, Harald. **AA** Scott: Harvard University. Uhlig: Tilburg University. **SR** Centre for Economic Policy Research Discussion Paper: 2071; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 dollars or 8 dollars or 8 euros. **JE** D92,

F21, F32, F43, O40. **KW** Asian Crisis. Growth. Fickle Investors. Current Account. Volatility.
AB See abstract for Andrew Scott and Harald Uhlig, February 1999. "Fickle Investors: An Impediment to Growth?". London School of Economics, Centre for Economic Performance Discussion Paper: 415; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk.

PD June 1999. **TI** Does Tax Smoothing Imply Smooth Taxes? **AA** London Business School and Oxford. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 429; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 19. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** E62, H21, H24, H60. **KW** Fiscal Policy. Incomplete Markets. Optimal Taxation. Tax Smoothing.
AB Using a stochastic growth model with shocks to productivity, government expenditure and tastes, analytical expressions are derived for optimal labor and capital tax rates. Labor taxes are driven by two factors: (a) a component reflecting Ramsey efficiency considerations and (b) a component reflecting the government's financing needs which vary with excess burden of taxation. With complete markets, the government can issue fully contingent debt and insure against variations in the excess burden of taxation, so taxes change purely for efficiency reasons. Assuming logarithmic utility, both the serial correlation and variance of taxes can show frequent and predictable changes, can display a strong cyclical pattern and may be more or less volatile than governmental expenditure. However, assuming a balanced growth path rules out a martingale process for labor taxes. When the government can only issue risk-free non-contingent debt, then both Ramsey considerations and variations in excess burden of taxation lead to changes in taxes and increase tax volatility. Variations in the excess burden introduce a martingale component in labor taxes. The relative importance of this martingale component is positively related to uncertainty concerning government expenditure while the importance of the Ramsey component depends positively on the excess burden of taxation.

Seidman, Laurence S.

TI Funding Social Security: The Transition in a Life-Cycle Growth Model. **AU** Lewis, Kenneth A.; Seidman, Laurence S.

Sela, Aner

PD December 1997. **TI** Fictitous Play in Coordination Games. **AU** Sela, Aner; Herreiner, Dorothea K. **AA** Sela: University of Bonn. Herreiner: University of Mannheim, Germany. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/423; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 9. **PR** no charge. **JE** C72, D83. **KW** Learning. Fictitious Play. Coordination Games. Game Theory.
AB We study the Fictitious Play process with bounded and unbounded recall in pure coordination games for which failing to coordinate yields a payoff of zero for both players. It is shown that every Fictitious Play player with bounded recall may fail to coordinate against his own type. On the other hand, players with unbounded recall are shown to coordinate (almost surely) against their own type as well as against players with bounded recall. This implies that a FP player's realized average utility is (almost surely) at least as large as his minmax payoff in 2 by 2 coordination games.

Selten, Reinhard

PD November 1997. **TI** Features of Experimentally Observed Bounded Rationality. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/421; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 20. **PR** no charge. **JE** C70, C90, D63, D83. **KW** Bounded Rationality. Experiments. Strategic Interaction. Reciprocity. Fairness.
AB On the basis of experimental evidence reported in the literature the paper draws conclusions about the bounded rationality exhibited by human economic behavior. Among the topics discussed are presentation effects caused by superficial analysis, strategic reasoning and strategy construction based on reciprocity and fairness, avoidance of circular concepts in step by step strategic reasoning, ex-post rationality and learning direction theory, presence of both adaptive and analytic approaches to repeated decision tasks, and the absence of quantitative expectations and optimization in typical repeated game strategies.

TI An Experiment on the Hypothesis of Involuntary Truth-Signalling in Bargaining. **AU** Ockenfels, Axel; Selten, Reinhard.

TI Local Manufacturing Hurt by Depreciations in a Theoretical Model Reflecting the Australian Experience. **AU** Pope, Robin; Selten, Reinhard.

PD May 1999. **TI** What is Bounded Rationality? Paper Prepared for the Dahlem Conference 1999. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/454; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 30. **PR** no charge. **JE** C70, D11, D63, D83. **KW** Bounded Rationality. Strategic Interaction. Learning. Reciprocity. Fairness.
AB The author discusses a few selected topics with the aim of conveying insights into the essential features of bounded rationality. The author looks at the subject matter from the point of view of economic theory. He is convinced of the necessity of reconstructing microeconomics on the basis of a more realistic picture of economic decision making. Moreover, he thinks that there are strong reasons for modeling boundedly rational economic behavior as non-optimizing. The material presented here reflects that conviction. In this paper the use of the term bounded rationality follows the tradition of H.A. Simon. It refers to rational principles underlying non-optimizing adaptive behavior of real people.

Settle, Russell F.

TI Women's Suffrage and the Growth of the Welfare State. **AU** Abrams, Burton A.; Settle, Russell F.

Shabsigh, Ghiath

TI Real Exchange Rate Behavior and Economic Growth:

Evidence from Egypt, Jordan, Morocco, and Tunisia. **AU** Domac, Ilker; Shabsigh, Ghiath.

Shaked, Avner

TI Altruists, Egoists and Hooligans in a Local Interaction Model. **AU** Eshel, Illan; Samuelson, Larry; Shaked, Avner.

Shapira, Zur

PD September 1998. **TI** Patterns of Behavior of Professionally Managed and Independent Investors. **AU** Shapira, Zur; Venezia, Itzhak. **AA** Shapira: New York University. Venezia: Hebrew University. **SR** New York University, Salomon Center Working Paper: S/98/38; 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** 16. **PR** $5.00 each; $100.00 yearly subscription. **JE** D12, G11, G12, G24. **KW** Investor Behavior. Brokerage. Disposition Effect. Asset Pricing. Managed Investment.

AB This paper analyzes the patterns of investment of a large number of clients of a major brokerage house in Israel during the year 1994. It compares the investment behavior of clients who made their own investment decisions independently with those whose accounts were managed by the brokerage house itself. In particular, the authors investigate whether the disposition effect (i.e., the tendency to sell winners quicker than losers) which had been demonstrated in the U.S. for individual non-professional clients, also holds for investments managed by professionals. This comparison is important since prices are assumed to be determined by the decisions of professionals. In addition, the Israeli market is especially interesting since all profits of individuals in the stock market are tax-free. Hence, tax considerations are absent in the Israeli market. The authors also compare the frequency of trades, the volumes of trade, and the profitability of independent vs. managed investors.

Sharpe, Steven A.

PD January 1999. **TI** Stock Prices, Expected Returns, and Inflation. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/02; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 43. **PR** no charge. **JE** E31, G12. **KW** Stock Returns. Inflation. Price-Earnings Ratio. Expectations.

AB This paper examines the effect of expected inflation on stock prices and expected long-run returns. Ex ante estimates of expected long-run returns are derived by incorporating estimates of investor expectations of future corporate cash flows into a variant of the Campbell-Shiller dividend-price ratio model. In this model, the log earnings-price ratio is expressed as a linear function of expected future returns, expected earnings growth rates, and the log of the current dividend-payout ratio. The author finds that the negative relation between equity valuations and expected inflation results from two effects: higher expected inflation coincides with lower expected real earnings growth and higher required real returns. The earnings channel is not merely a reflection of inflation's recession-signaling properties; the negative valuation effect also results from a negative relation between expected inflation and expected longer-term real earnings growth. The effect of expected inflation on required real stock returns is also substantial.

Shin, Hyun Song

TI A Theory of the Onset of Currency Attacks. **AU** Morris, Stephen; Shin, Hyun Song.

Shin, Yongcheol

TI A Long-Run Structural Macroeconometric Model of the UK. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol.

TI A Structural Cointegrating VAR Approach to Macroeconometric Modelling. **AU** Garratt, Anthony; Lee, Kevin C.; Pesaran, M. Hashem; Shin, Yongcheol.

Sibert, Anne

TI UDROP: A Small Contribution to the New International Financial Architecture. **AU** Buiter, Willem H.; Sibert, Anne.

Sicular, Terry

TI Rethinking Inequality Decomposition, with Evidence from Rural China. **AU** Morduch, Jonathan; Sicular, Terry.

TI Politics, Growth, and Inequality in Rural China: Does it Pay to Join the Party? **AU** Morduch, Jonathan; Sicular, Terry.

Simar, Leopold

PD June 1998. **TI** Productivity Growth in Industrialized Countries. **AU** Simar, Leopold; Wilson, Paul W. **AA** Simar: Institut de Statistique and Universite Catholique de Louvain. Wilson: University of Texas. **SR** Universite Catholique de Louvain CORE Discussion Paper: 9836; 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** C51, C52, D92, O30, O47. **KW** Productivity Growth. Malmquist Index. Efficiency. Technology. Estimation.

AB Several recent papers in the American Economic Review examined important questions regarding productivity growth and its sources in industrialized countries: Fare, Grosskopf, Norris, and Zhang (FGNZ), 1994 and Ray and Desli (RD), 1997. The authors examine two sets of issues raised by these papers, and reassess what can be learned about productivity, efficiency, and technology from the data used by both papers. The first set of issues are primarily economic in nature. The Malmquist measure of efficiency change was decomposed by FGNZ. RD offers an alternative decomposition of the Malmquist index, but the component which is supposed to measure changes in returns to scale confounds the different effects of movement of production units in input/output space and changes in the shape of the technology over this problem. The second set of issues examined concern estimation and inference. The authors provide a statistical model suggested by the original framework of FGNZ.

Simon, Leo K.

TI A Dynamic Model of the Food Processing Sector in the New Market Economies of Central Europe. **AU** Lyons, Robert; Goodhue, Rachel E.; Rausser, Gordon C.; Simon, Leo K.

TI Performance Pay and Producer Incentives: Analyzing Broiler Chicken Production Contracts. **AU** Goodhue, Rachel

E.; Rausser, Gordon C.; Simon, Leo K.

TI Cleanup Delays at Hazardous Waste Sites: An Incomplete Information Game. **AU** Rausser, Gordon C.; Simon, Leo K.; Zhao, Jinhua.

Sin, Carlos A.

TI Bounds on European Option Prices under Stochastic Volatility. **AU** Frey, Rudiger; Sin, Carlos A.

Sinclair, P. J. N.

PD August 1998. **TI** What is Wrong with the Flat Tax? **AU** Sinclair, P. J. N.; Renstrom, Thomas. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/18; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 27. **PR** 2 pounds ($4); no charge to academics. **JE** D63, H21, H24. **KW** Flat Tax. Pareto Improvement. Welfare Function. Investment Exemption.
AB The simplest flat tax proposals envisage a single marginal tax rate applying on all income. In the context of a simple model where agents vary in ability to earn, we demonstrate (a) that everyone is better off in the long run with an income-tax exemption for investment, than without it, and (b) that, in a static context, the optimal two-rate income tax is Pareto-superior to the optimal single-rate tax, under both Utilitarian and Rawlsian welfare functions.

PD August 1998. **TI** How Money Can Help Labour and Hurt Capital. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/19; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 29. **PR** 2 pounds ($4); no charge to academics. **JE** D90, E24, E31, E41. **KW** Optimal Inflation. Money. Overlapping Generations. Steady-State Output.
AB In a simple overlapping generations set-up, faster nominal money growth is found to squeeze labor and divert savings towards physical capital. Its net effect on both output and welfare is ambiguous. The main variable that can resolve these ambiguities is the profit share in income: the lower this is, the likelier it becomes that steady-state utility and output are lowered by faster inflation. Optimum inflation is shown to be positive and finite, under simplifying conditions, when this variable is set at plausible values.

PD August 1998. **TI** Why do the Poor Save so Little? **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/20; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 23. **PR** 2 pounds ($4); no charge to academics. **JE** D91, E21, H55, I38. **KW** Savings. Poor. Intertemporal Consumption. Pensions.
AB The richest 10 percent of British households devote 12 percent of their incomes to life assurance, savings and investment while the poorest tenth devote only one and a half percent. There are four powerful arguments for expecting the poor to rationally save a lower fraction of their income. First, the basic state pension reduces the incentive to save, but much more powerfully for the poor, since it is unrelated to income. Secondly, the poorest perceive little point in saving when they can avail themselves of the supplementary benefit if they have saved nothing. Thirdly, the poor die younger on average, so saving for a pension is a worse bet for the poor. Finally, people can undertake a psychic investment that strengthens their demand for consumption in old age. The poor lack the incentive and resources to make such psychic investments. These four arguments make low saving by the poor explicable, and perfectly rational. However, the third argument is based on a market failure. It is inefficient, and unjust that the low-paid are not offered more generous private pensions, given their propensity to die earlier. Remedying this market failure would tend to increase the saving of the poor.

PD August 1998. **TI** Asia's "Open Regionalism" Alternative to Preferential Trade Agreements: Promising, Attractive, or Vulnerable to Cronyism? **AU** Sinclair, P. J. N.; Vines, David. **AA** Sinclair: University of Birmingham. Vines: Balliol College Oxford, Australian National University, and Center for Economic Policy Research. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/21; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 22. **PR** 2 pounds ($4); no charge to academics. **JE** F13, F15. **KW** Free Trade. Open Regionalism. Trade Liberalization. Nash-Optimal Tariffs.
AB Starting with a world where all countries apply Nash-optimal tariffs against all imports, we ask when, if ever, a group of countries can gain by trading freely ("promise") and when, if ever, it pays an outsider to join them ("attractiveness"). The free trade club is promising if enough join, but it cannot be attractive. If the club, instead, abolishes internal tariffs and reduces tariffs on imports from non-members, it can be attractive, and will be promising if it is attractive. Our results are then modified to incorporate cronyism (policies to enhance the rent of a domestic firm at the expense of other domestic agents). Although a trade-liberalizing club stands to gain more from cutting tariffs on a true welfare basis, because cronyism implies higher tariffs, the distorted measure of welfare implied by cronyism may well register a fall, and especially when the club is large.

PD September 1998. **TI** Utility and Population Growth. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 98/22; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 18. **PR** 2 pounds ($4); no charge to academics. **JE** D60, D91, J11, O40. **KW** Population Growth. Overlapping Generations. Steady-State Utility. Growth Models.
AB Faster population growth lowers steady-state utility per head in simple Ramsey and Solowian growth models. In overlapping generations models, however, it always raises utility per head in the steady state when money is the sole asset. It can do so, when sufficiently rapid, when capital is the only store value, because it raises the rate of interest (a source of benefit to agents whose consumption follows earnings on average over time). The inclusion of a fixed natural resource need not destroy this result, if balanced by the introduction of a public good.

Sinn, Hans-Werner

PD November 1998. **TI** The Pay-As You-Go Pension System as a Fertility Insurance and Enforcement Device. **AA** Universitat Munchen. **SR** Centre for Economic Policy Research Discussion Paper: 2023; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 36. **PR** 5 pounds or 8 dollars or 8 euros. **JE** H55, J13, J24, J61. **KW** Social Security. Public Pensions. Migration. Fertility. Human Capital.

AB It is argued that a PAYGO system may have useful allocative functions in that it serves as an insurance against not having children and as an enforcement device for "rotten kids" who are unwilling to pay their parents a pension. It is true that the system has a moral hazard effect in terms of reducing the investment in human capital, but, if it is run on a sufficiently small scale, this effect will not be strong enough to prevent a welfare improvement. If, on the other hand, the scale of the system is so large that parents bequeath some of their pensions to their children, it is overdrawn and creates unnecessarily strong disincentives for human capital investment.

Sjoholm, Fredrik

TI Technology, Transfer and Spillovers: Does Local Participation With Multinationals Matter? **AU** Blomstrom, Magnus; Sjoholm, Fredrik.

Small, Arthur A.

TI Valuing Research Leads: Bioprospecting and the Conservation of Genetic Resources. **AU** Rausser, Gordon C.; Small, Arthur A.

Smith, Ron P.

TI Structural Analysis of Cointegrating VARs. **AU** Pesaran, M. Hashem; Smith, Ron P.

Smith, Roy C.

PD February 1999. **TI** 1998 Global Capital Market Activity and Market Shares of Leading Competitors. **AU** Smith, Roy C.; Walter, Ingo. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/11; 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** 2. **PR** $5.00 each; $100.00 yearly subscription. **JE** G21, G23, G24, G30. **KW** Capital Markets. Financial Services. Market Shares.

AB Capital market activity in 1998 exceeded all prior records for non- government and other private sector issuers. Underwriting and private placements of securities were nearly $4 trillion, completed mergers and acquisitions exceeded $2.5 trillion, and bank loans and new issues of medium term notes were each nearly $1 trillion. The authors' composite market share table for 1998 is attached. They call this the "gorilla table" because it identifies the largest players in the global wholesale financial services market. They measured combined volume attributable to the various originating firms in four main areas of wholesale financial services on the basis of full credit to lead manager only (or adviser to either buyer or seller in the case of acquisitions). The authors believe the sum of the volumes across all four lines of business is a reliable proxy for determining which firms had the most impact on the market during the year.

PD March 1999. **TI** Restructuring Japanese Financial Institutions. **AA** New York University. **SR** New York University, Salomon Center Working Paper: S/99/14; 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** E44, E58, G21, G23, G28. **KW** Market Restructuring. Financial Markets. Banking. Japan.

AB The view is widely held that Japan must do something both to stimulate macroeconomic growth and to repair the damages of financial institutions, especially the banks, using public money to do so if necessary. A mixture of resentment and frustration has again, as it has on many previous occasions, obscured what is really going on. Japan is indeed on schedule for repairing its banking problems, and has taken many steps in the direction of deregulation and opening its system to market and competitive forces. Japan is the last of the major economic powers to do so, and in Japan, there has been a great deal of underbrush to remove before reforms could be implemented. Nonetheless, more progress has been made than many observers recognize. However, there is still more to do before the full benefits of Japanese industrial restructuring can be achieved through a corporate merger and acquisition boom.

Snodgrass, Donald R.

PD May 1998. **TI** The Economic Development of Sri Lanka: A Tale of Missed Opportunities. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 637; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 29. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** F43, I31, N15, O20, O53. **KW** Sri Lanka. Economic Policy. Basic Human Needs. Ethnic Conflict. Development.

AB Sri Lanka recently marked its fiftieth anniversary of independence. Considered by many an excellent prospect for economic development in its early years, the nation quickly encountered serious political and economic problems and acquired a reputation for slow economic growth but a high level of social welfare and basic human needs satisfaction. In fact, both reputations require some correction. Economic growth has been only moderate but it has been far superior to that recorded by many other countries that followed the nationalistic and populist policies pursued by Sri Lanka in some periods of its history, or which suffered violent ethnic discord. Meanwhile, Sri Lanka's social achievements, which stood out in the 1950's and 1960's, have been matched or exceeded in the 1980's and 1990's by other Asian countries that achieved much faster economic growth. The two major constraints on Sri Lanka's economic development have been inappropriate economic policies and ethnic strife.

Soete, Luc

TI Globalization in Search of a Future: The Contemporary Challenge to National Policies. **AU** Petit, Pascal; Soete, Luc.

Sola, Martin

TI An Empirical Reassessment of Target-Zone Nonlinearities. **AU** Garratt, Anthony; Psaradakis, Zacharias; Sola, Martin.

Solomou, Solomos

PD June 1998. **TI** Weather Impacts on the Construction Sector, 1855-1913. **AU** Solomou, Solomos; Wu, Weike. **AA** University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9813; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 9. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C14, C32, E32, N63. **KW** Weather Effects. Construction Sector. Economic History. Business Cycles.

AB This paper uses semiparametric time-series methods to model the effects of weather variations on the output growth rate of the construction sector. The paper also employs structural time-series methods to model the cyclical paths of weather variables and uses this information to evaluate the effects of random and cyclical weather shocks on construction sector output. The results suggest a significant weather effect on the construction sector that adds exogenous sector- specific effects to macroeconomic business cycles.

PD June 1998. **TI** Effective Exchange Rates, 1879-1913. **AU** Solomou, Solomos; Catao, Luis. **AA** Solomou: University of Cambridge. Catao: International Monetary Fund. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9814; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 16. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** E42, F31, N11, N43. **KW** Gold Standard. Exchange Rates. Real Rates. Effective Rates.

AB This paper constructs nominal and real multilateral effective exchange rates for Britain, France, Germany and the U.S. during the period of the classical Gold Standard, 1879-1913. The new data indicate that the major industrial countries saw trend variations in their nominal effective rates, which appear to have been stochastic in nature, and to have reflected a significant amount of trade with non-gold countries. The behavior of nominal effective rates suggests the existence of common trend patterns across the industrial countries, reflecting similar trading structures in the pre-1914 period. In contrast, the movements of the real effective rates reflect national- specific influences.

Sommer, Daniel

PD January 1997. **TI** Pricing and Hedging of Contingent Claims in Term Structure Models with Exogenous Issuing of New Bonds. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/397; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 25. **PR** no charge. **JE** E43, G12, G13. **KW** Term Structure. Interest Rates. Long Term Bonds. Incomplete Markets. Option Pricing.

AB If calibrated to an observed term structure of interest rates that only covers a finite range of times-to-maturity an HJM-model of the term structure of interest rates will eventually die out in finite time as bonds reach maturity. This poses problems for the pricing and hedging of certain contingent claims. Therefore, we extend the HJM-model in such a way that it lives on an arbitrary time horizon and possesses term structures that cover a constant finite interval of times-to-maturity. We consider the pricing and hedging of contingent claims in this framework.

PD November 1998. **TI** Pseudo-Arbitrage: A New Approach to Pricing and Hedging in Incomplete Markets. **AA** University of Bonn and KPMG. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper:B/442; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 33. **PR** no charge. **JE** G12, G13. **KW** Arbitrage. Pseudo-Arbitrage. Contingent Claims. Hedging. Incomplete Markets.

AB The authors develop a new approach to pricing and hedging contingent claims in incomplete markets. Mimicking as closely as possible in an incomplete markets framework the no-arbitrage arguments that have been developed in complete markets leads the authors to defining the concept of pseudo-arbitrage. Building on this concept the authors extend the no-arbitrage idea to a world of incomplete markets in such a way that based on a concept of risk compatible with the axioms of Artzner et al. they can derive unique prices and corresponding optimal hedging strategies without invoking specific assumptions on preferences (other than monotonicity and risk aversion). Price processes of contingent claims are martingales under a unique martingale measure. A comparison to a version of the Hull and White stochastic volatility model shows that in contrast to their approach explicitly taking into account optimal hedging strategies leads to positive market prices of risk for volatility.

Sondermann, Dieter

TI Log-Normal Interest Rate Models: Stability and Methodology. **AU** Sandmann, Klaus; Sondermann, Dieter.

Sorsa, Piritta

PD April 1999. **TI** Algeria -- TheReal Exchange Rate, Export Diversification, and Trade Protection. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/49; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 23. **PR** not available. **JE** F13, F31, F41, F43. **KW** Protection. Growth. Trade Liberalization. Exchange Rates. Exports.

AB Given the tendency of the oil sector to appreciate the equilibrium real exchange rate (RER) in Algeria, trade liberalization with its depreciating impact on the RER is important for diversification of exports. This paper shows that reduction in trade protection would depreciate the RER in Algeria, which in turn would improve competitiveness of, and incentives to invest in, non-oil exports. The paper then discusses existing levels of protection.

TI A Review of Capital Account Restrictions in Chile in the 1990's. **AU** Nadal-De Simone, Francisco; Sorsa, Piritta.

PD May 1999. **TI** Macroeconomic Conditions and Import Surcharges in Selected Transition Economies. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/62; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 21. **PR** not available. **JE** F13, F31, F32, F41. **KW** Trade Liberalization. Exchange Rates. Transition Economies. Fiscal Policy. Current Account.

AB Analysis on macroeconomic determinants of protection in the Czech and Slovak Republics, Hungary, and Poland, while

subject to many caveats, suggests that appreciation of the real exchange rate was the main macroeconomic determinant of trade policy reversals in the 1990's. This suggests that balance of payments difficulties may have been used as an excuse for protection. The analysis also suggests that greater exchange rate flexibility and tighter fiscal policies could have been used instead of import surcharges to deal with external imbalances. The surcharges may only have aggravated the external balance by slowing down exports and the restructuring of production.

Sourial, Maged Shawky

TI The Egyptian Stock Market: Efficiency Tests and Volatility Effects. **AU** Mecagni, Mauro; Sourial, Maged Shawky.

Spencer, Neil H.

TI Value-Added Analysis for Cross-Classified Multilevel Data. **AU** Fielding, Antony; Spencer, Neil H.

Spilimbergo, Antonio

PD April 1999. **TI** Copper and the Chilean Economy, 1960-98. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: 99/57; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 29. **PR** not available. **JE** E31, E32, F10, F32, F41. **KW** Chile. Copper Prices. Capital Flows. Exchange Rates. Growth.

AB The paper concludes that world copper prices play an important role in short-term fluctuations and probably influence long-term growth of the Chilean economy. While many mechanisms may be at work, investment seems to play a major role. In a copper price boom, the higher copper price and associated capital inflows create upward pressure on the real exchange rate. The appreciation of the Chilean peso during the first part of the copper cycle contributes to lower inflation, which could partly explain why real wages grow more rapidly in this part of the cycle.

Srinivasan, Anand

TI Price Formation in the OTC Corporate Bond Markets: A Field Study of the Inter-Dealer Market. **AU** Saunders, Anthony; Srinivasan, Anand; Walter, Ingo.

Stapleton, Richard C.

TI When are Options Overpriced? The Black-Scholes Model and Alternative Characterisations of the Pricing Kernel. **AU** Franke, Gunter; Stapleton, Richard C.; Subrahmanyam, Marti G.

Starr-McCluer, Martha

PD April 1998. **TI** Stock Market Wealth and Consumer Spending. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/20; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 19. **PR** no charge. **JE** D91, E21. **KW** Stock Market. Consumption. Saving. Life Cycle Models. Wealth.

AB This paper investigates the effects of stock market wealth on consumer spending. Traditional macroeconometric models estimate that a dollar's increase in stock market wealth boosts consumer spending by 3-7 cents per year. With the substantial 1990's rise in stock prices, the nature and magnitude of this "wealth effect" have been much debated. After describing the issues and reviewing previous research, I present new evidence from the SRC Survey of Consumers. The survey results are broadly consistent with life cycle saving and a modest wealth effect: Most stockholders reported no appreciable effect of stock prices on their saving or spending, but many mentioned "retirement saving" in explaining their behavior.

PD January 1999. **TI** Workers' Knowledge of their Pension Coverage: A Reevaluation. **AU** Starr-McCluer, Martha; Sunden, Annika. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/05; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 20. **PR** no charge. **JE** D12, E21, J26, J32. **KW** Pensions. Saving. Household Behavior. Retirement.

AB Because employer-provided pensions represent an important source of income during retirement, accurate information on pension coverage would seem to be crucial for making sound decisions on retirement timing, saving, and portfolio allocation. However, previous research suggests that workers' knowledge of their pension provisions is often incomplete or incorrect. This paper re-examines workers' knowledge of their pension coverage, using matched employer-employee data from the Federal Reserve Board's Survey of Consumer Finances. We find that, while most workers in our sample accurately reported the general features of their pension coverage, their knowledge of the detailed features was often fairly limited.

Steedman, Hilary

PD August 1999. **TI** Looking into the Qualifications 'Black Box': What Can International Surveys Tell Us About Basic Competence. **AA** London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 431; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 41. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** I21, J24, O52. **KW** Basic Competence. Skill Level. Low Skills. Literacy.

AB This paper investigates the usefulness of the International Standard Classification of Education (henceforth ISCED) in cross-national comparisons within the European Union (EU). The paper first assesses the extent to which the <ISCED3 group (no education or training beyond compulsory school) can be considered a valid proxy for the "low skills" group in the population. It then assesses the consistency of the ISCED levels as an instrument for comparisons of skill levels within the EU. The international surveys used to test the validity of the ISCED come from the Center for Economic Performance (CEP) for the British government's 1996 Skills Audit, the Third International Mathematics and Science Study (TIMSS), and the International Adult Literacy Survey (IALS). France, Germany and the UK had similar proportions of those classified to <ISCED3 below the British government's Skills Audit "low skills" benchmark. Using the TIMSS data, the performance of each of the EU6 countries on thirty simple arithmetic questions was analyzed. The paper shows that around one third of the <ISCED3 category score higher than IALS Level 2, consistent with

findings elsewhere of greater heterogeneity of the <ISCED3 group.

Stephan, Paula E.

TI How and Why Does Knowledge Spill Over? The Case of Biotechnology. **AU** Audretsch, David B.; Stephan, Paula E.

Stephens, Mark

TI Asymmetries in Housing and Financial Market Institutions and EMU. **AU** Muellbauer, John; Maclennan, Duncan; Stephens, Mark.

Stohs, Stephen

TI A Strong Test of the Von Liebig Hypothesis. **AU** Berck, Peter; Geoghegan, Jacqueline; Stohs, Stephen.

Strahan, Philip E.

TI The Consolidation of the Financial Services Industry: Causes, Consequences, and Implications for the Future. **AU** Berger, Allen N.; Demsetz, Rebecca S.; Strahan, Philip E.

Stroughhair, John D.

TI Pitfalls and Opportunities in the Use of Extreme Value Theory in Risk Management. **AU** Diebold, Francis X.; Schuermann, Til; Stroughhair, John D.

Suarez, Javier

TI Entrepreneurial Moral Hazard and Bank Monitoring: A Model of the Credit Channel. **AU** Repullo, Rafael; Suarez, Javier.

Subrahmanyam, Marti G.

TI Credit Risk and the Pricing of Japanese Yen Interest Rate Swaps. **AU** Ho Eom, Young; Subrahmanyam, Marti G.; Uno, Jun.

TI The Valuation of American Barrier Options Using the Decomposition Technique. **AU** Gao, Bin; Huang, Jing-zhi; Subrahmanyam, Marti G.

TI When are Options Overpriced? The Black-Scholes Model and Alternative Characterisations of the Pricing Kernel. **AU** Franke, Gunter; Stapleton, Richard C.; Subrahmanyam, Marti G.

Sun, Guangzheng

TI Evolution in Division of Labor, Urbanization, and Land Price Differentials between the Urban and Rural Areas. **AU** Yang, Xiaokai; Sun, Guangzheng.

Sundaram, Rangarajan K.

TI Contract Renegotiation and the Optimality of Resetting Executive Stock Options. **AU** Archarya, Viral V.; John, Kose; Sundaram, Rangarajan K.

Sunden, Annika

TI Workers' Knowledge of their Pension Coverage: A Reevaluation. **AU** Starr-McCluer, Martha; Sunden, Annika.

Sutherland, Holly

TI Microsimulation and Policy Debate: A Case Study of the Minimum Pension Guarantee in Britain. **AU** Atkinson, A. B.; Sutherland, Holly.

PD November 1998. **TI** A Citizen's Pension. **AA** University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9824; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 35. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D31, H55, I38, J14. **KW** Pensions. Pensioner Incomes. Citizen's Pension. Microsimulation.

AB A Citizen's Pension (CP) is a Citizen's Income for older people, payable on an individual basis to citizens, regardless of gender, current or past employment or marital status, living arrangements or income. A particular advantage of a CP at an adequate level is that it has the potential to lift most pensioners clear of dependency on means- tested benefits. The stigma and inconvenience associated with means- testing would be replaced by an assurance of an adequate, regular income that is an automatic right based on citizenship. This paper concentrates on the financial aspects and implications of the introduction of a CP. Using the microsimulation model, POLIMOD, it estimates the cost of various forms of CP and explores a range of methods for financing it. The paper examines the distributional impact on pensioners and on the population as a whole, focusing particularly on the burden of financing and on the gender impact of the CP.

Svensson, Lars E. O.

PD October 1998. **TI** Open-Economy Inflation Targeting. **AA** Stockholm University. **SR** Centre for Economic Policy Research Discussion Paper: 1989; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 40. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E31, E52, E58, F41. **KW** Price Stability. Transmission Mechanisms. Monetary Policy. Inflation Targeting.

AB The paper examines inflation targeting in a small open economy with forward-looking aggregate supply and demand with microfoundations, and with stylized realistic lags in the different monetary-policy transmission channels. The paper compares strict and flexible targeting of CPI and domestic inflation and inflation-targeting reaction functions and the Taylor rule. Flexible CPI-inflation targeting does not only limit the variability of CPI inflation but also the variability of the output gap and the real exchange rate. Negative productivity supply shocks and positive demand shocks have similar effects on inflation and the output gap and induce similar monetary policy responses.

PD October 1998. **TI** Inflation Targeting as a Monetary Policy Rule. **AA** Stockholm University. **SR** Centre for Economic Policy Research Discussion Paper: 1998; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 60. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E31, E42, E52, E58, F33. **KW** Instruments. Indicators. Intermediate Targets. Inflation Targeting. Monetary Policy.

AB The purpose of the paper is to survey and discuss inflation targeting in the context of monetary policy rules. The paper provides a general conceptual discussion of monetary policy rules, attempts to clarify the essential characteristics of inflation targeting, compares inflation targeting to other

monetary policy rules, and draws some conclusions for the monetary policy of the European System of Central Banks.

PD October 1998. **TI** Policy Rules for Inflation Targeting. **AU** Svensson, Lars E. O.; Rudebusch, Glenn D. **AA** Svensson: Stockholm University. Rudebusch: Federal Reserve Bank of San Francisco. **SR** Centre for Economic Policy Research Discussion Paper: 1999; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 60. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E31, E52, E58. **KW** Instrument Rules. Target Rules. Inflation Targeting. Central Banks. Monetary Policy.

AB Policy rules that are consistent with inflation targeting are examined in a small macroeconometric 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.

Swanson, Eric T.

PD January 1999. **TI** Models of Sectoral Reallocation. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/03; 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** E22, E23, E32, O47. **KW** Sectoral Reallocation. Sectoral Shifts. Procyclical Productivity. Capital Utilization. Business Cycles.

AB This paper demonstrates several strengths and shortcomings of models of sectoral reallocation. Although such models demonstrate that sectoral reallocation can be an important amplification and propagation mechanism for exogenous shocks, they are essentially unable to explain any effects of sectoral reallocation on aggregate productivity or related quantities, unless a wedge is introduced into the model that drives the marginal products of inputs in different sectors apart in steady state. In particular, costs of adjustment and lags to adjustment are not sufficient. This paper offers a solution to the problem in the form of variable sectoral capital utilization, the marginal product of which can differ across sectors in steady state. Reallocations of production between sectors in this setting are then shown to have first-order effects on aggregate productivity and real wages, and can explain the procyclicality of these variables without reliance on large, exogenous, and persistent shocks to technology.

Szigeti, Zoltan

PD May 1998. **TI** Perfect Matchings Versus Odd Cuts. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98865; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 12. **PR** no charge. **JE** C44, C60, J41. **KW** Almost Critical Graphs. Tight Cut Lemma. Matching Theory.

AB We give a simple proof for an important result of Edmonds, Lovasz and Pulleyblank, stating that a brick has no non-trivial tight cuts. Our proof relies on some results on almost critical graphs. The introduction of these graphs is the second aim of the present paper.

PD July 1998. **TI** On the Graphic Matroid Parity Problem. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98870; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 11. **PR** no charge. **JE** C44, C60. **KW** Graphic Matroid Parity. Combinatorial Theory. Matroid Intersection.

AB A simple proof is presented for the min-max theorem of Lovasz on the graphic matroid parity problem. We shall apply twice the matroid intersection theorem.

TI An Orientation Theorem with Parity Conditions. **AU** Frank, Andras; Jordan, Tibor; Szigeti, Zoltan.

Tabellini, Guido

PD January 1999. **TI** The Size and Scope of Government: Comparative Politics With Rational Politicians. **AU** Tabellini, Guido; Persson, Torsten. **AA** Tabellini: Universita di Brescia and Universita Bocconi. Persson: Institute for International Economic Studies. **SR** Centre for Economic Policy Research Discussion Paper: 2051; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 52. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D72, E62, H11, H23, H41. **KW** Corruption. Presidential System. Electoral Rules. Public Goods. Government Size.

AB The authors try to demonstrate how economists may engage in research on comparative politics, relating the size and composition of government spending to the political system. A Downsian model of electoral competition and forward-looking voting indicates that majoritarian -- as opposed to proportional -- elections increase competition between parties by focusing it into some key marginal districts. This leads to less public goods, less rents for politicians, more redistribution and larger government. A model of legislative bargaining and backward- looking voting indicates that presidential -- as opposed to parliamentary -- regimes increase competition between both politicians and voters. This leads to less public goods, less rents for politicians, less redistribution, and smaller government. The authors confront these predictions with cross-country data from around 1990, controlling for economic and social determinants of government spending. They find strong and robust support for the prediction that the government size is smaller under presidential regimes.

Tahmiscioglu, A. Kamil

TI Bayes Estimation of Short-Run Coefficients in Dynamic Panel Data Models. **AU** Hsaio, Cheng; Pesaran, M. Hashem; Tahmiscioglu, A. Kamil.

TI Maximum Likelihood Estimation of Fixed Effects Dynamic Panel Data Models Covering Short Time Periods. **AU** Cheng, Hsaio; Pesaran, M. Hashem; Tahmiscioglu, A. Kamil.

Tang, Fang-Fang

TI Adaptive Learning versus Punishment in Ultimatum Bargaining. **AU** Abbink, Klaus; Bolton, Gary E.; Sadrieh, Abdolkarim; Tang, Fang-Fang.

Tay, Anthony S.

TI Real-Time Multivariate Density Forecast Evaluation and Calibration: Monitoring the Risk of High-Frequency Returns on Foreign Exchange. **AU** Diebold, Francis X.; Hahn, Jinyong; Tay, Anthony S.

Taylor, A. M. Robert

TI On Regression-Based Tests for Seasonal Unit Roots in the Presence of Periodic Heteroscedasticity. **AU** Burridge, Peter; Taylor, A. M. Robert.

PD May 1999. **TI** Regression-Based Seasonal Unit Root Tests with Recursive Mean Adjustment. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 99/11; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 25. **PR** 2 pounds ($4); no charge to academics. **JE** C22. **KW** Seasonality. Unit Roots. Recursive Mean-Adjustment. Brownian Motion.

AB This paper is concerned with tests for seasonal unit roots in a univariate time series process. We construct test statistics which are similar, both exactly and asymptotically, with respect to both the initial values of the process and the possibility of differential seasonal drift under the null hypothesis of a seasonal unit root. In contrast to existing regression-based seasonal unit root tests, where similar tests are obtained by seasonally de-meaning and seasonally de- trending the process, utilizing all available sample data, we adopt the technique of recursive seasonal de-meaning and seasonal de-trending of the process. Representations are derived for the limiting distributions of the proposed test statistics in this and other cases of interest. These representations provide an explanation for the similarity between critical values for the statistics in the different scenarios considered. A size and power study of the proposed test statistics is also undertaken, which demonstrates that these statistics display comparable size distortions to existing regression-based seasonal unit root tests in the presence of weak parametric autocorrelation but display considerably better power properties against seasonal stationary autoregressive process.

PD May 1999. **TI** Locally Optimal Tests Against Seasonal Unit Roots. **AA** University of Birmingham. **SR** University of Birmingham, Department of Economics Discussion Paper: 99/12; Department of Economics School of Social Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, United Kingdom. Website: www.bham.ac.uk/economics. **PG** 21. **PR** 2 pounds ($4); no charge to academics. **JE** C22. **KW** Locally-Weighted Mean. Seasonality. Unit Roots. Data Pre-Filtering.

AB This paper builds upon the existing literature on tests of the null hypothesis of deterministic seasonality in a univariate time-series process against the alternative of unit root behavior at some or all of the zero and seasonal frequencies. Under the assumption of independent Gaussian errors we derive the class of locally weighted mean most powerful invariant tests against seasonal unit roots. We then propose both non-parametric and parametric modifications of these tests designed to have limit distributions which are free of nuisance parameters under weaker conditions on the errors. Our modified tests statistics are shown to contain existing tests of seasonal stability as special cases. We also suggest a number of extensions to these tests, either to allow testing in more general models or to rectify certain practical problems which we identify with the statistics.

Telmer, Chris

TI Discrete-Time Models of Bond Pricing. **AU** Backus, David; Foresi, Silverio; Telmer, Chris.

TeSelle, Garrett H.

PD September 1998. **TI** Bubbles or Noise? Reconciling the Results of Broad-Dividend Variance- Bounds Tests. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/41; 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** C52, G12. **KW** Asset Pricing. Volatility. Variance-Bounds Tests. Cash Flows. Bubbles.

AB Recent research indicates that results of variance-bounds tests of stock price volatility may depend on the definition of cash flows deemed relevant to shareholders: Tests using regular (or "narrow") dividends repeatedly have suggested that stock prices fluctuate more than can be explained by a simple present value hypothesis, while some tests using "broad dividends" do not detect such excess price volatility. Researchers disagree as to the cause and meaning of these differences. This paper derives and analyzes the broad-dividend version of the present value hypothesis to show that under common assumptions, these differences in variance-bounds tests have only two possible causes: Either narrow-dividend tests have rejected the present value hypothesis because of bubbles; or broad-dividend tests simply have lacked power to detect mispricing. Using simulation and results from previous studies, this paper demonstrates that the second possible cause most likely explains the differences between narrow- and broad-dividend variance- bounds tests.

Tetlow, Robert J.

PD January 1999. **TI** Simplicity Versus Optimality: The Choice of Monetary Policy Rules when Agents Must Learn. **AU** Tetlow, Robert J.; von zur Muehlen, Peter. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/10; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 49. **PR** no charge. **JE** C50, C60, D83, E52, E58. **KW** Monetary Policy. Learning. Optimal Control. Central Banks. Information.

AB The monetary policy rules that are widely discussed -- notably the Taylor rule -- are remarkable for their simplicity. One reason for the apparent preference for simple ad hoc rules over optimal rules might be the assumption of full information maintained in the computation of an optimal rule. Arguably this makes optimal control rules less robust to model specification errors. This paper drops the full-information assumption and investigates the choice of policy rules when agents must learn the rule that is in use. To do this, the authors conduct stochastic simulations on a small, estimated forward-looking model, with agents following a strategy of least-squares learning or discounted least-squares learning. The authors find that the costs of learning a new rule can, under some circumstances, be substantial. These circumstances vary with the preferences of the monetary authority and with the rule initially in place.

Tinsley, P. A.

PD July 1998. **TI** Rational Error Correction. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/37; 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** C51, C52, D84, E23, E30. **KW** Companion Systems. Error Correction. Producer Pricing. Rational Expectations.

AB Under general conditions, linear decision rules of agents with rational expectations are equivalent to restricted error corrections. However, empirical rejections of rational expectation restrictions are the rule, rather than the exception, in macroeconomics. Rejections often are conditioned on the assumption that agents aim to smooth only the levels of actions or are subject to geometric random delays. Generalizations of dynamic frictions on agent activities are suggested that yield closed-form, higher-order decision rules with improved statistical fits and infrequent rejections of rational expectations restrictions. Properties of these generalized "rational" error corrections are illustrated for producer pricing in manufacturing industries.

Tiomo, Anohe

TI The Portfolio Composition of Households: A Scoring Analysis from French Data. **AU** Gourieroux, Christian; Tiomo, Anohe; Trognon, Alain.

Titterington, David

TI Bayesian Inference in Hidden Markov Models through Jump Markov Chain Monte Carlo. **AU** Robert, Christian P.; Ryden, Tobias; Titterington, David.

Tomasi, Ted

TI A Comparison of Welfare Estimates from Four Models for Linking Seasonal Recreational Trips to Multinomial Logit Models of Site Choice. **AU** Parsons, George R.; Jakus, Paul M.; Tomasi, Ted.

Tornell, Aaron

PD October 1998. **TI** Voracity and Growth. **AU** Tornell, Aaron; Lane, Philip R. **AA** Tornell: Harvard University. Lane: Trinity College, Dublin. **SR** Centre for Economic Policy Research Discussion Paper: 2001; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 44. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E32, F43, O10, O23, O40. **KW** Economic Growth. Voracity. Natural Resources. Terms of Trade. Differential Games.

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 pro-cyclical response to shocks.

Torstensson, Johan

TI What Determines the Economic Geography of Europe? **AU** Haaland, Jan I.; Torstensson, Johan; Kind, Hans Jarle; Knarvik, Karen Helene Midelfart.

Triesch, Eberhard

PD February 1997. **TI** Conjectures on the Uniqueness of Hamiltonian Cycles and the Number of Perfect Matchings. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 97856; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 4. **PR** no charge. **JE** C44, C60. **KW** Hamiltonian Cycles. Perfect Matchings. Vehicle Routing. Traveling Salesmen Problem.

AB not available.

TI Improved Results for Competitive Group Testing. **AU** Schlaghoff, Jens; Triesch, Eberhard.

TI Perfect Matchings in Balanced Hypergraph -- A Combinatorial Approach. **AU** Huck, Andreas; Triesch, Eberhard.

TI On the Bipartite Travelling Salesman Problem. **AU** Frank, Andras; Korte, Bernhard; Triesch, Eberhard; Vygen, Jens.

Trionfetti, Frederico

PD August 1999. **TI** On The Home Market Effect: Theory and Empirical Evidence. **AA** London School of Economics. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 430; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 32. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** D41, D43, F11, F12. **KW** Home Market. Increasing Returns. Home Bias. International Trade.

AB This paper proposes a discriminating hypothesis to distinguish between two paradigms of international trade: (1) Constant-Returns- Perfect-Competition (CRS-PC) and (2) Increasing-Returns-Monopolistic- Competition (IRS-MC). The discriminating hypothesis rests on the different degree of home bias among "consumers". It predicts a positive relationship between a country's share of world's home-biased expenditure if the sector is IRS-MC and no relationship if the sector is CRS-PC. Accordingly, six sectors (covering 43.85% of industrial activity) are associated with IRS-MC, and nine sectors (30.15% of industrial activity) with the CRS-PC paradigm. Results were not conclusive for the remaining three sectors.

Trognon, Alain

TI The Portfolio Composition of Households: A Scoring Analysis from French Data. **AU** Gourieroux, Christian; Tiomo, Anohe; Trognon, Alain.

Tschoegl, Adrian E.

TI Problems of Bank Lending in Bulgaria: Information Asymmetry and Institutional Learning. **AU** Koford, Kenneth; Tschoegl, Adrian E.

Tulkens, Henry

TI Core-Theoretic and Political Stability of International Agreements on Transfrontier Pollution. **AU** Currarini, Sergio; Tulkens, Henry.

Udell, Gregory F.

TI The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle. **AU** Berger, Allen N.; Udell, Gregory F.

Uhlig, Harald

TI Fickle Investors: An Impediment to Growth? **AU** Scott, Andrew; Uhlig, Harald.

TI Fickle Investors: An Impediment to Growth? **AU** Scott, Andrew; Uhlig, Harald.

Uno, Jun

TI Credit Risk and the Pricing of Japanese Yen Interest Rate Swaps. **AU** Ho Eom, Young; Subrahmanyam, Marti G.; Uno, Jun.

TI Number of Shareholders and Stock Prices: Evidence from Japan. **AU** Amihud, Yakov; Mendelson, Haim; Uno, Jun.

Uribe, Martin

TI Monetary Policy and Multiple Equilibria. **AU** Benhabib, Jess; Schmitt-Grohe, Stephanie; Uribe, Martin.

Utikal, Klaus J.

TI Inference for Density Families Using Functional Principal Component Analysis. **AU** Kneip, Alois; Utikal, Klaus J.

Van Den Berg, Geraiol

TI Equilibrium Search with Productivity Dispersion: Theory and Estimation. **AU** Bontemps, Christian; Robin, Jean-Maie; Van Den Berg, Geraiol.

Van Garderen, Kees Jan

PD December 1993. **TI** Cross-Sectional Aggregation of Non-Linear Models. **AU** Van Garderen, Kees Jan; Lee, Kevin C.; Pesaran, M. Hashem. **AA** Garderen: University of Bristol. Lee: University of Leicester. Pesaran: University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9803; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk/dae/. **PG** 27. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C43, C52, E23. **KW** Aggregation. Prediction. Production Functions. Parametric Bootstrap.
AB This paper considers the problem of cross-sectional aggregation when the underlying micro behavioral relations are characterized by general non-linear specifications. It focuses on forecasting the aggregates, and shows how an optimal aggregate model can be derived by minimizing the mean squared prediction errors conditional on the aggregate information. It also derives model selection criteria for distinguishing between aggregate and disaggregate models when the primary object of the analysis is forecasting the aggregates, and establishes the consistency of the model selection criteria in large samples. In the case of standard non-linear micro relations with additive specifications, boot- strap techniques are considered to correct for small sample bias of the proposed model selection criteria. The paper also contains an empirical application where log-linear production functions are estimated for the United Kingdom economy disaggregated by eight industrial sectors and at the aggregate level for 1954-1995.

van Soest, Arthur

TI Language and the Earnings of Immigrants. **AU** Dustmann, Christian; van Soest, Arthur.

Vanasse, C.

TI The Informational Content of Household Decisions. **AU** Dionne, Georges; Gourieroux, Christian; Vanasse, C.

Vanden Eeckaut, Philippe

TI Distinguishing Technical and Scale Efficiency on Non-Convex and Convex Technologies: Theoretical Analysis and Empirical Illustrations. **AU** Kerstens, Kristiaan; Vanden Eeckaut, Philippe.

Venezia, Itzhak

TI Patterns of Behavior of Professionally Managed and Independent Investors. **AU** Shapira, Zur; Venezia, Itzhak.

Verboven, Frank

TI The Evolution of Price Dispersion in the European Car Market. **AU** Goldberg, Pinelopi Koujianou; Verboven, Frank.

PD January 1999. **TI** The Diffusion of Mobile Telecommunications Services in the European Union. **AU** Verboven, Frank; Gruber, Harald. **AA** Verboven: University of Antwerp. Gruber: European Investment Bank. **SR** Centre for Economic Policy Research Discussion Paper: 2054; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 32. **PR** 5 dollars or 8 dollars or 8 euros. **JE** L10, L86, L96, O33. **KW** Technology Diffusion. Mobile Telecommunications. Competition. Regulation.
AB We study the determinants of the diffusion of mobile telecommunications services in the European Union in a logistic model of technology diffusion. We find that the transition from the analogue to the digital technology during the early nineties, and the corresponding increase in spectrum capacity, has had a major impact on the diffusion of mobile telecommunications. The impact of introducing competition was also significant, during both the analogue and the digital period, though the effect was proportionately smaller. Finally, we find that countries which granted first licenses at later points in time, show a significant catching-up effect, though international convergence may be expected only by the year 2006. The empirical results remain robust when other possible determinants of diffusion are included, such as the size of the fixed network and GDP per capita.

PD February 1999. **TI** The Markets for Gasoline and Diesel Cars in Europe. **AA** University of Antwerp. **SR** Centre for Economic Policy Research Discussion Paper: 2069; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 52. **PR** 5 dollars or 8 dollars or 8 euros. **JE** D12, D42, D91, L12. **KW** Implicit Interest

Rates. Price Discrimination. Automobile Market. Monopoly. Consumer Behavior.

AB The existing tax policies towards gasoline and diesel cars in the European countries provide a unique opportunity to analyze intertemporal investment aspects in consumer behavior and quality-based price discrimination aspects in manufacturer pricing behavior. The authors develop an econometric framework of demand and pricing for gasoline and diesel cars. Consumers choose a gasoline or a diesel car based on their annual mileage. Manufacturers set gasoline and diesel car prices. The empirical results show that consumer implicit interest rates are close to capital market rates, and considerably lower than the previous estimates obtained in the literature on consumer appliances. Furthermore, the results show that the relative pricing of gasoline and diesel cars is consistent with a monopoly model and inconsistent with competitive models of pricing. On average, about 70 to 85 percent of the price differentials between gasoline and diesel cars can be explained by markup differences.

Verger, Daniel

TI Inegalites et Cycles de Vie: Les Liens Entre Consommation, Patrimoine et Revenu Permanent. **AU** Lollivier, Stefan; Verger, Daniel.

Vettas, Nikolaos

PD November 1998. **TI** Investment Dynamics in Markets with Endogenous Demand. **AA** Duke University. **SR** Centre for Economic Policy Research Discussion Paper: 1994; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 62. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D83, D92, F13, L11, L52. **KW** New Products. Diffusion Paths. Network Externalities. Infant Industries. Path Dependence.

AB In several interesting markets, demand is an increasing function of past sales because of learning, network externalities or fashion. This paper examines entry into such markets. The two key elements of the model are that firms are uncertain about the demand (and learn in a Bayesian fashion) and that demand grows endogenously over time. The capacity expansion path of the competitive market is compared with the planning/monopoly solution. These paths differ not only with respect to levels (the market's investment is too low), but also with respect to their time patterns (externalities may lead to S-shaped diffusion). This framework provides some justification for industrial or trade policy arguments for subsidizing entry into new markets, especially for infant- export industries. The markets examined also exhibit path-dependence: small initial differences in demand conditions may lead either to an established market or a non-existing one.

Vidal, Jean-Pierre

TI Financial Integration and Monetary Competition. **AU** Cardarelli, Roberto; Vidal, Jean-Pierre.

TI Economic Integration and Growth Under Intergenerational Financing of Human Capital Formation. **AU** Michel, Philippe; Vidal, Jean-Pierre.

Vieille, Nicolas

TI Repeated Communication Through the Mechanism "AND". **AU** Gossner, Olivier; Vieille, Nicolas.

Vignoles, Anna

TI The Economic Case for Reforming A Levels. **AU** Dolton, Peter; Vignoles, Anna.

Villoso, Claudia

TI Short Employment Spells in Italy, Germany and Great Britain: Testing the 'Port-of-Entry' Hypothesis. **AU** Contini, Bruno; Pacelli, Lia; Villoso, Claudia.

Vincent, Jeffrey R.

PD February 1998. **TI** Theoretical Aspects of Forest Accounting. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 625; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 18. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** E22, Q23. **KW** National Income Accounts. Forestry. Timber. Depreciation.

AB Many recent empirical studies have focused on national accounting issues related to forest resources, but none has systematically examined the issues from a theoretical perspective. In this paper, I demonstrate that one should adjust the level of GDP upward for household consumption of nonmarket nontimber products and forest amenities. One should not adjust the level of GDP for production externalities, however, which instead imply reallocation of sectoral value added within GDP. Adjustments for household consumption of nonmarket goods carry over into NDP; in addition, one must adjust NDP for the net depreciation of the timber stock, the carbon stock, and land converted from forests to other uses. Empirical studies commonly violate one or more of these guidelines.

TI Discounting Costs and Benefits in Carbon Sequestration Projects. **AU** Boscolo, Marco; Vincent, Jeffrey R.; Panayotou, Theodore.

Vines, David

TI Asia's "Open Regionalism" Alternative to Preferential Trade Agreements: Promising, Attractive, or Vulnerable to Cronyism? **AU** Sinclair, P. J. N.; Vines, David.

Vives, Xavier

PD November 1998. **TI** Information Aggregation, Strategic Behaviour and Efficiency in Cournot Markets. **AA** Institut d'Analisi Economica. **SR** Centre for Economic Policy Research Discussion Paper: 2019; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 52. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D43, D82, L13, L41. **KW** Market Power. Private Information. Information Sharing. Harberger Triangle. Competition Policy.

AB When analyzing a Cournot market with private cost information, is more error introduced by ignoring market power or by ignoring the impact of incomplete information? Is the welfare loss at the market outcome driven by private information or by market power? The answer is that in large enough markets abstracting from market power provides a much better approximation than abstracting from private information. More precisely, in a replica market with n firms facing increasing marginal costs of production subject to independent shocks, while the effect of market power decays

quickly with n, the effect of private information decays more slowly with n. Increasing n is more effective in reducing the welfare loss due to market power than the one due to private information. Simulations show that the result holds for moderately sized markets whenever uncertainty is significant. In this case information policy is more relevant than classical competition policy.

Vogler, Michael

TI Portuguese Migrants in the German Labour Market: Performance and Self-Selection. **AU** Bauer, Thomas; Zimmermann, Klaus F.; Vogler, Michael; Pereira, Pedro T.

von Thadden, Ernst-Ludwig

PD November 1998. **TI** Liquidity Creation through Banks and Markets: Multiple Insurance and Limited Market Access. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9820; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 16. **PR** no charge. **JE** D50, D91, G10, G21. **KW** Banks. Market Frictions. Liquidity. Demand Deposits. Incentive Compatibility.

AB The paper surveys theories of the intertemporal allocation of funds through demand deposits and anonymous markets, first separately and then in an integrated model. It reviews some work on the role of market frictions and asset characteristics, and suggests that the interplay between these two is crucial in explaining the observed coexistence of demand deposits and anonymous markets.

von Ungern-Sternberg, Thomas

PD September 1998. **TI** Property Insurance in Britain. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9814; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 28. **PR** no charge. **JE** D82, G22, H42, L51, L80. **KW** Property Insurance. Terrorism. Risk Selection. Subsidence. Insurance Contracts.

AB The paper studies property insurance in Britain. It emphasizes the following points. In the case of terrorism insurance the government decided to provide cost free stop loss insurance to prevent the market from breaking down. When the country was hit by subsidence damages, the premiums and excesses for the owners concerned rose dramatically. The fact that contracts can be renegotiated every year means that the owners have only a very incomplete insurance cover. In Montserrat the insurance companies simply decided to cancel all their policies, when it became clear that the volcano might well destroy every building on the island.

PD September 1998. **TI** Gebaudeversicherung in England. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9815; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 29. **PR** no charge. **JE** D82, G22, H42, L51, L80. **KW** Property Insurance. Terrorism. Risk Selection. Subsidence. Insurance Contracts.

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PD December 1998. **TI** L'Assurance Immobiliere en Grande-Bretagne. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9822; Ecole des HEC-DEEP, Universite de Lausanne, BFSH1 -- Dorigny, CH-1015 Lausanne, Switzerland. Website: www.hec.unil.ch/depart/DEEP/cahiers/cah- list.htm. **PG** 27. **PR** no charge. **JE** D82, G22, H42, L51, L80. **KW** Property Insurance. Terrorism. Risk Selection. Subsidence. Insurance Contracts.

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TI A Model of Regulation in the Housing Market. **AU** Raess, Pascal; von Ungern-Sternberg, Thomas.

von zur Muehlen, Peter

TI Simplicity Versus Optimality: The Choice of Monetary Policy Rules when Agents Must Learn. **AU** Tetlow, Robert J.; von zur Muehlen, Peter.

Vriend, Nicolaas J.

TI An Experimental Study of Adaptive Behavior in an Oligopolistic Market Game. **AU** Nagel, Rosemarie; Vriend, Nicolaas J.

Vygen, Jens

TI On the Bipartite Travelling Salesman Problem. **AU** Frank, Andras; Korte, Bernhard; Triesch, Eberhard; Vygen, Jens.

TI Efficient Implementation of the Goldberg-Tarjan Minimum-Cost Flow Algorithm. **AU** Bunnagel, Ursula; Korte, Bernhard; Vygen, Jens.

PD 1998. **TI** Edge-Disjoint Paths in Series-Parallel Graphs. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: 98871; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 5. **PR** no charge. **JE** C44, C60. **KW** Edge-Disjoint Paths. Series-Parallel Graphs. NP-Complete.

AB We prove that the edge-disjoint paths problem is NP-complete even when restricted to series-parallel graphs.

Walter, Ingo

TI Price Formation in the OTC Corporate Bond Markets: A Field Study of the Inter-Dealer Market. **AU** Saunders, Anthony; Srinivasan, Anand; Walter, Ingo.

TI 1998 Global Capital Market Activity and Market Shares of Leading Competitors. **AU** Smith, Roy C.; Walter, Ingo.

Wambach, Achim

TI Inside Versus Outside Financing and Product Market Competition. **AU** Schnitzer, Monika; Wambach, Achim.

Wasmer, Etienne

PD November 1998. **TI** Can Labour Supply Explain the Rise in Underemployment and Inter-Group Wage Inequality in the OECD? **AA** Institute For International Economic Studies, Stockholm and London School of Economic. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 410; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 39. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** C22, J16, J21, J64. **KW** Labor Supply. Unemployment. Female Labor. Causality.

AB This paper investigates how labor supply trends might have affected the OECD labor markets in the last decades. It is argued that changes in supply cannot be considered as homogenous: they involve more young and more adult female workers, who are complements with skilled men and substitutes with low-wage groups (young, unskilled). Such labor supply trends since the 50's may have increased competition between women, young workers and low skilled workers in some segments of the labor force. These mechanisms are described by a model and an empirical strategy is undertaken to test its predictions. Disaggregation by gender is necessary. Endogeneity of participation levels with respect to unemployment is treated in two ways, by instrumental variables estimators, and with time series techniques. Significant causal relations between participation and unemployment cannot be rejected.

PD November 1998. **TI** Labor Supply Dynamics, Unemployment and Human Capital Investments. **AA** London School of Economic. **SR** London School of Economics, Centre for Economic Performance Discussion Paper: 411; Centre for Economic Performance, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, England. Website: cep.lse.ac.uk. **PG** 31. **PR** 5 pounds for individual copies; 95 pounds for yearly subscription. **JE** E24, J21, J24, J31. **KW** Wage Inequality. Education. Experience. Labor Supply.

AB In the last decades, the OECD labor markets faced important labor supply changes with the arrival of women and the cohorts of the baby- boom. Using a survey where workers declare their true employment experience, this paper argues that the supply trend can be equivalent to a trend of more inexperienced workers. The paper proposes to investigate the potentially important consequences of the dynamics of labor supply trends on the skill composition of the labor force, between-groups wage inequality and the level of unemployment. The mechanism highlighted here is that, in periods of sustained growth of the active population, the labor force is younger and less experienced, which may increase the wage return to 'experience' and lead to higher unemployment among low- experience workers. They do not accumulate enough on-the-job human capital, and this reduces in the long-run the supply of skilled workers and the demand for unskilled workers. This intertemporal multiplication of supply shocks generates multiple equilibria. When human capital investment decisions are introduced, low-experience groups try to improve their outcome on the labor market; new cohorts invest in education, women invest in the on-the-job skills.

Watt, P. A.

TI The Macroeconomic Effects of Local Government Expenditure. **AU** Fender, John; Watt, P. A.

Weber, Axel A.

PD November 1997. **TI** Sources of Currency Crisis: An Empirical Analysis. **AA** University of Bonn and Centre for Economic Policy Research. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/418; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 28. **PR** no charge. **JE** E44, F31, F32, F36. **KW** Exchange Rates. Speculation. Fundamentals. Currency Crises. Purchasing Power Parity.

AB Two types of currency crisis models coexist in the literature: first generation models view speculative attacks as being caused by economic fundamentals which are inconsistent with a given parity. Second generation models claim self-fulfilling speculation as the main source of a currency crisis. Recent empirical research in international macroeconomics has attempted to distinguish between the sources of currency crises. This paper adds to this literature by proposing a new empirical approach to identifying the speculative and fundamental components of currency crises in the context of a structural vector autoregression model. Our results suggest that only for the French franc can a substantial speculative component be identified as a potential source of the 1992-93 ERM crisis.

PD November 1997. **TI** Sources of Purchasing Power Disparities between the G3-Economies. **AA** University of Bonn and Centre for Economic Policy Research. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/419; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 26. **PR** no charge. **JE** E44, F31. **KW** Purchasing Power Parity. Exchange Rates. Shocks. Vector Autoregression. Impulse Response.

AB Recent theoretical and empirical research in international macroeconomics has rediscovered the problem of purchasing power parity (PPP). Empirically, PPP is a bad approximation of both the short-term and medium-term properties of the data. Economists have had difficulties in explaining the persistent misalignments of real exchange rates, but new empirical research by Clarida and Gali (1995) suggests that much of these real exchange rate movements are due to relative demand shocks. The present paper challenges this view by using an extended version of their structural vector autoregressive (SVAR) model in order to identify a larger number of real shocks (labor supply, productivity and aggregate demand) and nominal shocks (money demand and money supply). It is found that whilst some of their results go through in our extended framework, there is serious doubt with respect to the appropriateness of labeling those shocks which drive real exchange rates as aggregate demand disturbances.

PD November 1997. **TI** Sources of Purchasing Power Disparities: Europe versus the United States. **AA** University of Bonn and Centre for Economic Policy Research. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/420; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 26. **PR** no charge. **JE** E52, E63, F31, F33. **KW** Purchasing Power Parity. Exchange Rates. Shocks. Vector Autoregression. Impulse Response.

AB In order to design appropriate exchange rate policies, it is instrumental to understand the sources of real and nominal exchange rate movements. The authors apply and extend the structural vector autoregression (SVAR) model of Clarida and Gali (1994) in order to identify the importance of various types of real shocks (labor supply, aggregate supply and aggregate demand) and nominal shocks (money demand and money supply) for European and transatlantic exchange rate movements. It is found that whilst real and nominal U.S. dollar exchange rates are driven predominantly by relative demand shocks, European real and nominal exchange rate movements have distinctly different roots. The bulk of European relative price and nominal exchange rate movements can be explained by the differential long-run impact of monetary policy, and moving to EMU will eliminate both. However, misalignments are likely to persist between the Euro-area and the economies outside the Union.

Weber, Guglielmo

PD October 1998. **TI** Changes in Consumption Behaviour: Italy in the Early 1990's. **AU** Weber, Guglielmo; Grant, Charles; Miniaci, Raffaele. **AA** Weber and Grant: University College London. Miniaci: University of Padua. **SR** Centre for Economic Policy Research Discussion Paper: 2006; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 52. **PR** 5 pounds or 8 dollars or 8 euros. **JE** D91, E21, E32. **KW** Consumption. Micro Data. Business Cycles. Life Cycle. Italy.

AB This paper investigates the causes of the Italian consumption bust of the early 1990's by estimating deviations from 'normal' consumption using household level data for 1985-94. The data set used is a particularly rich, but as yet unexplored, source recently released by ISTAT. It contains detailed demographic and expenditure information for over 30,000 Italian households each year. The main findings are that the decline in consumption was larger for the working age households. The fall in consumption was also stronger in the south, among the self- employed, and among public sector employees. The decline can be dated from the third quarter of 1992. We use a simulation to show how these results can be reconciled with the life-cycle model of consumption in which there is a permanent and unexpected shock to lifetime income induced by the pension and other reforms introduced by the Amato government.

Weigand, Jurgen

TI Does Science Make a Difference? Investment, Finance and Corporate Governance in German Industries. **AU** Audretsch, David B.; Weigand, Jurgen.

Weil, David N.

TI Population, Technology and Growth: From the Malthusian Regime to the Demographic Transition. **AU** Galor, Oded; Weil, David N.

Weinbach, Gretchen C.

TI Currency Ratios and U.S. Underground Economic Activity. **AU** Porter, Richard D.; Weinbach, Gretchen C.

Weisenberg, Holger

PD March 1998. **TI** Modeling Market Risk in a Jump-Diffusion Setting. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/424; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 22. **PR** no charge. **JE** G13. **KW** Jump Diffusion. Martingale Measures. Arbitrage-Free Securities. Replicable Securities. Market Risks.

AB We generalize the paper of Hofmann, Platen and Schweizer (HPS92) to jump-diffusion models. First we introduce securities which are replicable in a self-financing way. Then we characterize market risks, which are in a special way 'orthogonal' to these securities. Moreover, we prove that every general arbitrage-free security has a unique decomposition into a self-financing replicable security and such a market risk. Then we discuss the martingale measures for our jump- diffusion model. In particular we examine the minimal equivalent martingale measure and show that in our model the minimal martingale measure is characterized by preserving the market risk processes under a change of measure. But we state also that unlike in the continuous case it does not preserve the orthogonality to the martingale part of the underlyings.

Werner, J.

TI Minimum-Cost Portfolio Insurance. **AU** Aliprantis, C. D.; Brown, D.; Werner, J.

Wesche, Katrin

TI European Business Cycles: New Indices and Analysis of their Synchronicity. **AU** Dueker, Michael; Wesche, Katrin.

Wescott, Robert F.

TI Is Poland Ready for Inflation Targeting? **AU** Christoffersen, Peter F.; Wescott, Robert F.

White, Lawrence J.

TI Cookie-Cutter versus Character: The Micro Structure of Small Business Lending by Large and Small Banks. **AU** Cole, Rebel A.; Goldberg, Lawrence G.; White, Lawrence J.

Wickens, Michael R.

PD November 1998. **TI** What was the Market's View of UK Monetary Policy? Estimating Inflation Risk and Expected Inflation with Indexed Bonds. **AU** Wickens, Michael R.; Remolona, Eli M.; Gong, Frank F. **AA** Wickens: University of York. Remolona: Federal Reserve Bank of New York. Gong: Bank of America. **SR** Centre for Economic Policy Research Discussion Paper: 2022; Centre for Economic Policy Research, 90-98 Goswell Road, London EC1V 7RR, United Kingdom. Website: www.cepr.org. **PG** 52. **PR** 5 pounds or 8 dollars or 8 euros. **JE** E31, E43, E52, E62, G12. **KW** Inflation Risk. Expected Inflation. Indexed Bonds. Affine Yields. Monetary Policy.

AB A measure of the credibility of monetary policy is the inflation risk premium embodied in nominal yields. This will be time varying and can be estimated by combining the information contained in the nominal term structure of interest rates with that in the real term structure of inflation-indexed bonds. Information can also be obtained about the real risk premium and about expected inflation. The authors estimate these risk premia using a generalization of the Cox-Ingersoll-Ross (CIR) affine-yield model. They use a one-factor model of the real term structure based on monthly observations on two-year, five-year and ten- year UK index-linked debt, and a two-factor model of the nominal term structure for the corresponding nominal yields. Estimates show that the inflation risk premium contributes on average about 100 basis points to nominal yields. Since the exit from the Exchange Rate Mechanism (ERM) this has fallen to about 70 basis points.

Wieland, Volker

PD April 1998. **TI** Monetary Policy and Uncertainty about the Natural Unemployment Rate. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/22; 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** C61, D80, E24, E31, E52. **KW** Monetary Policy. Gradualism. Parameter Uncertainty. Unemployment. Experimentation.

AB Recent empirical research concerning the relationship between inflation and unemployment, a relationship central to the design of monetary policy, has been characterized by a debate about the precision of relevant parameter estimates such as the estimated natural unemployment rate. This paper studies the optimal monetary policy in the presence of uncertainty about the natural rate and the short-run inflation-unemployment tradeoff in a simple macroeconomic model. Two conflicting motives drive the optimal policy. In the static version of the model, uncertainty provides a motive for the policymaker to move more cautiously than she would if she knew the true parameters. In the dynamic version, uncertainty also motivates an element of experimentation in policy. The author finds that the optimal policy that balances the cautionary and activist motives typically exhibits gradualism, i.e. it is less aggressive than if disregards uncertainty. Exceptions occur when uncertainty is very high and inflation close to target.

TI Price Stability and Monetary Policy Effectiveness when Nominal Interest Rates are Bounded at Zero. **AU** Orphanides, Athanasios; Wieland, Volker.

TI Robustness of Simple Monetary Policy Rules under Model Uncertainty. **AU** Levin, Andrew; Wieland, Volker; Williams, John C.

Wilkinson, S. Frank

PD March 1998. **TI** Co-Operation, the Organisation of Work, and Competitiveness. **AA** University of Cambridge. **SR** University of Cambridge, ESRC Centre for Business Research Working Papers: WP 85; Centre for Business Research, Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, England. Website: www.cbr.cam.ac.uk. UK; WP 85. **PG** 35. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** D63, J53, L14, L22, L23. **KW** Co-Operation. Trust. Labor-Management Relations. New Competition. Distribution.

AB Operational and dynamic efficiency depend on co-operative production relationships. The incentives structure required to overcome rivalry in distribution and encourage co-operation is illustrated by a simple model. Traditional pre-occupations with markets or hierarchy for economic co-ordination generated low trust which reduced co-operation in Anglo-American economies. The competitive weakness of this was revealed by the successful challenge mounted by high-trust, co-operative productive systems. These demonstrated the importance of representative micro- and macro-level institutions for generating trust, countering uncertainty and encouraging co-operation. The undermining of these institutions by neo-liberal policies threatens co-operation and long- term operational and dynamic efficiency.

TI Low Pay in Europe and the USA: Evidence from Harmonised Data. **AU** Robson, Paul; Dex, Shirley; Wilkinson, S. Frank; Salido, Olga.

TI Low Pay and Social Exclusion: A Cross-National Comparison. **AU** Robson, Paul; Dex, Shirley; Wilkinson, S. Frank.

TI Labour Law and Economic Theory: A Reappraisal. **AU** Deakin, Simon; Wilkinson, S. Frank.

TI Performance Standards in Supplier Relations: Relational contracts, Organisational Processes and the Institutional Environment. **AU** Deakin, Simon; Lane, Christel; Wilkinson, S. Frank.

Williams, John C.

TI Putty-Clay and Investment: A Business Cycle Analysis. **AU** Gilchrist, Simon; Williams, John C.

PD November 1998. **TI** Investment, Capacity, and Output: A Putty-Clay Approach. **AU** Williams, John C.; Gilchrist, Simon. **AA** Williams: Board of Governors of the Federal Reserve System. Gilchrist: Boston University. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 98/44; 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** D24, E22, E23. **KW** Investment. Putty-Clay. Vintage Capital. Irreversibility. Capacity Utilization.

AB In this paper, we embed the microeconomic decisions associated with investment under uncertainty, capacity utilization, and machine replacement in a general equilibrium model based on putty-clay technology. We show that the combination of log-normally distributed idiosyncratic productivity uncertainty and Leontief utilization choice yields an aggregate production function that is easily characterized in terms of hazard rates for the standard normal distribution. At low levels of idiosyncratic uncertainty, the short-run elasticity of supply is substantially lower than the elasticity of supply obtained from a fully-flexible Cobb-Douglas alternative. In the presence of irreversible factor proportions, an increase in idiosyncratic uncertainty typically reduces investment at the micro level but increases aggregate investment. Finally, we study the relationship between growth and uncertainty on aggregate capacity utilization and rates of machine replacement and investigate the factors that affect the magnitude of

replacement echoes.

TI Robustness of Simple Monetary Policy Rules under Model Uncertainty. **AU** Levin, Andrew; Wieland, Volker; Williams, John C.

PD February 1999. **TI** Simple Rules for Monetary Policy. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Finance and Economics Discussion Paper Series: 99/12; Ms. Karen Blackwell, FEDS Secretary, Mail Stop 77, Federal Reserve Board,Washington, DC 20551. Website: www.bog.frb.fed.us/pubs/feds/. **PG** 35. **PR** no charge. **JE** E52, E63, F41. **KW** Monetary Policy Rules. Macroeconometric Models. Rational Expectations. Stabilization.

AB This paper computes efficient monetary policy rules using the FRB/US large-scale open-economy macroeconometric model. Simple three-parameter policy rules are found to be effective at minimizing fluctuations in inflation, output, and interest rates: Increases in rule complexity yield trivial reductions in aggregate variability. Under rational expectations, efficient policies smooth the interest rate response to shocks and use the feedback from anticipated policy actions to stabilize inflation and output and to moderate movements in short-term interest rates. Policy should react to a multi-period inflation rate rather than the current quarter inflation rate; in fact, targeting the price level, as opposed to the inflation rate, involves only small additional stabilization costs. If expectations formation is invariant to policy, as in backward-looking models, the expectations channel is shut off and the performance of policies that are efficient under rational expectations may, as a result, deteriorate markedly; efficient policies, in contrast, exploit systematic expectational errors.

Wilson, Beth Anne

TI Nominal Wage Rigidity and Real Wage Cyclicality. **AU** Estevao, Marcello M.; Wilson, Beth Anne.

Wilson, Paul W.

TI Productivity Growth in Industrialized Countries. **AU** Simar, Leopold; Wilson, Paul W.

Winter-Ebmer, Rudolf

TI Lower and Upper Bounds of Returns to Schooling: An *Exercise in IV Estimation with Different Instruments.* **AU** Ichino, Andrea; Winter-Ebmer, Rudolf.

Wolford, Wendy

TI The Changing Role of the State in Latin American Land Reforms. **AU** de Janvry, Alain; Sadoulet, Elisabeth; Wolford, Wendy.

Wolsey, Laurence A.

TI Aggregation and Mixed Integer Rounding to Solve MIPs. **AU** Marchand, Hugues; Wolsey, Laurence A.

TI Lot-Sizing Problems: Modelling Issues and a Specialized Branch-and- Cut System BC-PROD. **AU** Belvaux, Gaetan; Wolsey, Laurence A.

Wood, Eric

TI Innovation Surveys and Very Small Enterprises. **AU** Cosh, Andy; Hughes, Alan; Wood, Eric.

TI Longitudinal Aspects of Innovation Surveys: The CBR Experience. **AU** Cosh, Andy; Hughes, Alan; Wood, Eric.

Woodruff, Christopher

TI Inter-Firm Relationships and Informal Credit in Vietnam. **AU** McMillan, John; Woodruff, Christopher.

Wright, David J.

TI Including Defaulted Bonds in the Capital Market Asset Spectrum. **AU** Reilly, Frank K.; Wright, David J.; Altman, Edward I.

Wright, Stephen

PD October 1998. **TI** Monetary Policy, Nominal Interest Rates, and Long-Horizon Inflation Uncertainty. **AA** University of Cambridge. **SR** University of Cambridge, Department of Applied Economics Working Papers, Amalgamated Series: 9820; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, United Kingdom. Website: www.econ.cam.ac.uk./dae/. **PG** 26. **PR** $10.00 (5 pounds); checks payable to University of Cambridge. **JE** C32, E31, E32, E52. **KW** Monetary Policy. Nominal Rates. Interest Rates. Inflation Uncertainty.

AB Empirical evidence presented in this paper shows that the predictability of inflation at long horizons varies considerable across countries. Both simple theory and empirical evidence suggest that the crucial factor is the extent to which systematic monetary policy succeeds in stabilizing the incipient unit root in inflation. The mechanism by which it does this appears, however, to be complicated by strong empirical evidence that nominal interest rates have real effects, which implies that monetary policy need not be so vigorous in reaction to inflation. This helps explain why inflation rates in the U.S. and (especially) Germany have been relatively predictable, despite monetary policy rules which appear to have been barely stabilizing. The paper also presents tentative evidence that the power of nominal interest rate effects is inversely related to long-horizon inflation uncertainty, and hence ultimately uncertainty about monetary policy.

TI The Good News and the Bad News about Long-Run Stock Market Returns. **AU** Robertson, Donald; Wright, Stephen.

Wu, Weike

TI Weather Impacts on the Construction Sector, 1855-1913. **AU** Solomou, Solomos; Wu, Weike.

Xu, Chenggang

TI Incentives, Information, and Organizational Form. **AU** Maskin, Eric; Qian, Yingyi; Xu, Chenggang.

Yang, Xiaokai

PD April 1998. **TI** A Theory of Efficient Business Cycles and Unemployment. **AA** Harvard University. **SR** Harvard Institute for International Development, Development Discussion Paper: 634; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. **PG** 34. **PR** paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. **JE** D50, D90, E24, E32, O40. **KW** Business Cycles. Endogenous Growth. Division Of

Labor. Unemployment. Welfare.
AB This paper introduces job-shifting costs and durable producer goods into a framework with consumer-producers, economies of specialized learning by doing and transaction costs, developed by Yang and Borland (1991) to explore the intimate relationship among the following three phenomena simultaneously: (1) Long-run endogenous, efficient, and regular business cycles, (2) Long-run endogenous, efficient, and cyclical unemployment, and (3) Long-run and endogenous growth. It is shown that if job-shifting costs, economies of specialized learning by doing, and transaction efficiency are sufficiently large, then a decentralized market will generate a dynamic equilibrium with business cycles and unemployment that is Pareto superior to those dynamics that involve no business cycles and unemployment. Hence, business cycles and unemployment may be a consequence of market success rather than of market failure. Possible negative effects on productivity and social welfare of government policies designed to eliminate or restrain business cycles and unemployment (government failure) are analyzed.

PD June 1998. TI Evolution in Division of Labor, Urbanization, and Land Price Differentials between the Urban and Rural Areas. AU Yang, Xiaokai; Sun, Guangzheng. AA Yang: Harvard University and Monash University. Sun: Monash University. SR Harvard Institute for International Development, Development Discussion Paper: 639; Harvard Institute for International Development, Publications Office, 14 Story Street, Cambridge, MA 02138. Website www.hiid.harvard.edu/pub/ddps.html. PG 27. PR paper copies $7.50 up to 80 pages long; $12.00 80 pages long and longer. JE D50, O18, R13, R33, R40. KW Division of Labor. Urbanization. Land Price Differential. Transaction Costs. Agglomeration Effect.
AB A general equilibrium model with consumer-producers, economies of specialization, and transaction costs is developed to explain the land price differential between the urban and rural areas by evolution in division of labor. It shows that as transaction conditions are improved, the equilibrium network of division of labor expands, the land price differential between the urban and rural areas increases, relative per capita consumption of land in the urban and rural areas decreases, and the productivity of all goods and per capita real income increase. Also, the following phenomena are different aspects of the evolution of division of labor and urbanization: the relative population size of urban to rural residents increases; trade dependence, the extent of the market, the degree of commercialization, individuals' levels of specialization, and the degree of diversity in the economic structure increase; and the degree of production concentration and the number of traded goods increase.

Zakoian, Jean-Michel

TI Contemporaneous Asymmetry in GARCH Processes. AU El Babsiri, Mohamed; Zakoian, Jean-Michel.

Zee, Howell H.

PD April 1999. TI Inequality and Optimal Redistributive Tax and Transfer Policies. AA International Monetary Fund. SR International Monetary Fund Working Paper: 99/60; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 27. PR not available. JE D31, D63, H21, H53. KW Inequality. Progressive Taxation. Optimal Taxation. Transfer Policy. Income Inequality.
AB This paper explores the revenue-raising aspect of progressive taxation and derives, on the basis of a simple model, the optimal degree of tax progressivity where the tax revenue is used exclusively to finance (perfectly) targeted transfers to the poor. The paper shows that not only would it be optimal to finance the targeted transfers with progressive taxation, but that the optimal progressivity increases unambiguously with growing income inequality. This conclusion holds up under different assumptions about the efficiency cost of taxation and society's aversion to inequality.

Zellner, Arnold

PD February 1998. TI Forecasting Turning Points in Countries' Output Growth Rates: A Response to Milton Friedman. AA University of Chicago and University of California, Berkeley. SR University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 868; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. PG 7. PR 25 cents per page domestic; 50 cents per page foreign. JE C11, C44, O40. KW Bayesian Analysis. Statistical Decision. Forecasting. Economic Growth.
AB In their past work, Zellner, Hong and Min (1991), the authors used variants of a simple autoregressive-leading indicator model and a Bayesian decision theoretic method to obtain correct forecasts in about 70 percent of 158 turning point forecasts for 18 industrialized countries' annual output growth rates in the period 1974-1986. IMF data for 1951-1973 were employed to estimate the models that were then employed to forecast downturns and upturns in annual growth rates for the period, 1974-1986. When Milton Friedman learned of their positive results, in a personal communication he challenged the authors to check their methods with an extended data set. Fortunately, with an extended data set the results held up, and now the authors report such new results for 18 countries' revised data involving 211 turning point episodes during the forecast period 1974-1990.

PD April 1998. TI A Note on Aggregation, Disaggregation and Forecasting Performance. AA University of Chicago and University of California, Berkeley. SR University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 869; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. PG 8. PR 25 cents per page domestic; 50 cents per page foreign. JE C53, O40. KW Aggregation. Disaggregation. Forecasting. Economic Growth.
AB This paper reports the results of an experiment to determine the effects of aggregation and disaggregation in forecasting the median growth rate of eighteen countries' annual output growth rates.

PD September 1998. TI Some Recent Developments in Bayesian Statistics and Econometrics. AA University of Chicago and University of California, Berkeley. SR University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 866; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of

California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 16. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C11, C50. **KW** Bayesian Statistics. Econometrics. Forecasting. Time Series. Information Theory.

AB After a brief review of the past and current status of the Bayesian approach to econometrics and statistics, a review of some recent results in Bayesian forecasting and their relation to time series model-building is presented. Then some remarks on the growing importance of information theory in Bayesian analysis are provided and illustrated with selected examples. It is pointed out that various information theoretic criterion functionals are being utilized to produce models for observations, prior densities, measures of the information provided by experiments, and information processing rules, including Bayes' Theorem. Information processing, when the form of the likelihood function is unknown, via the new Bayesian method of moments and generalized maxent procedures is discussed. Last, the future of Bayesian analysis is discussed.

PD January 1999. **TI** Keep It Sophisticatedly Simple. **AA** University of Chicago and University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 865; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 34. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C11, C50. **KW** Bayesian Analysis. Econometric Modeling. Model Complexity.

AB Section 1 introduces the idea of sophisticatedly simple models. Section 2 provides a brief review of the thoughts of Sir Harold Jeffreys, formerly of Cambridge University, on simplicity and its role in science. Then his numerical measure of the complexity of differential equation systems is reviewed and discussed. In Section 3, Jeffrey's measure is applied to several central time series and other models that are often used in econometrics and statistics. Some specific procedures for extending Jeffrey's measure of complexity to apply to difference equation systems, distributions of random structural and measurement errors are provided employing engineers's state space modeling concepts. The discussion and methods of Sections 2 and 3 are considered in relation to some structural econometric and time series modeling procedures that have been employed in practice in Section 4. Examples are provided to illustrate general points. Section 5 concludes and presents topics for further work.

PD January 1999. **TI** Discussion of Papers Presented at 1999 ASSA Meeting in New York by (1) Foster and Whiteman, (2) Golan, Moretti and Perloff, and (3) LaFrance. **AA** University of Chicago and University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics and Policy (CUDARE) Working Paper: 867; Giannini Foundation of Agricultural Economics Library, 248 Giannini Hall, #3310, University of California, Berkeley, Berkeley CA 94720-3310. Website: agecon.lib.umn.edu/ucb.html. **PG** 12. **PR** 25 cents per page domestic; 50 cents per page foreign. **JE** C11. **KW** Bayesian Analysis.

AB not available.

Zhang, Zhentang

TI Union Power and Product Market Competition: Evidence from the Airline Industry. **AU** Neven, Damien J.; Roller, Lars-Hendrik; Zhang, Zhentang.

Zhao, Jinhua

TI Cleanup Delays at Hazardous Waste Sites: An Incomplete Information Game. **AU** Rausser, Gordon C.; Simon, Leo K.; Zhao, Jinhua.

Zimmermann, Heinz

TI Global Economic Conditions and Risk Premia on International Investments. **AU** Oertmann, Peter; Zimmermann, Heinz.

Zimmermann, Klaus F.

TI Portuguese Migrants in the German Labour Market: Performance and Self-Selection. **AU** Bauer, Thomas; Zimmermann, Klaus F.; Vogler, Michael; Pereira, Pedro T.

Zuhlsdorff, Christian

PD March 1999. **TI** The Pricing of Derivatives on Assets with Quadratic Volatility. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 Discussion Paper: B/451; Sonderforschungsbereich 303, Universitat Bonn, Lennestrasse 37, D-53113 Bonn, Germany. Website: www.econ2.uni-bonn.de/sfb/papers. **PG** 10. **PR** no charge. **JE** G13. **KW** Option Pricing. Quadratic Volatility.

AB The basic model of financial economics is the Samuelson model of geometric Brownian motion because of the celebrated Black-Scholes formula for pricing the call option. The asset volatility is a linear function of the asset values and the model guarantees positive asset prices. We show that the pricing PDE can be solved if the volatility function is a quadratic polynomial and give explicit formulas for the call option: a generalization of the Black-Scholes formula for an asset whose volatility is affine, a formula for the Bachelier model with constant volatility and a new formula in the case of quadratic volatility. The implied Black-Scholes volatilities of the Bachelier and the affine model are frowns, the quadratic specifications also imply smiles.