

## 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. For more recent as well as historical information, consult the AWPE DATABASE, available on magnetic media from Cambridge University Press. (Call 212-924-3900)

### Abel, Andrew B.

PD July 1993. TI An Exact Solution for the Investment and Market Value of a Firm Facing Uncertainty, Adjustment Costs, and Irreversibility. AU Abel, Andrew B.; Eberly, Janice C. AA Abel: University of Pennsylvania and National Bureau of Economic Research. Eberly: University of Pennsylvania. SR National Bureau of Economic Research Working Paper: 4412; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 16. PR \$5.00. JE G30, G31, G12. KW Investment. Market Value. Adjustment Costs.

AB This paper derives closed-form solutions for the investment and market value, under uncertainty, of competitive firms with constant return to scale production and convex costs of adjustment. Solutions are derived for the case of irreversible investment as well as for reversible investment. Optimal investment is a non-decreasing function of  $q$ , the shadow value of capital. The conditions of optimality imply that  $q$  cannot contain a bubble that does not affect investment behavior. Relative to the case of reversible investment, the introduction of irreversibility does not affect  $q$ , but it reduces the fundamental market value of the firm.

### Abraham, Katherine G.

PD September 1993. TI Firms' Use of Outside Contractors: Theory and Evidence. AU Abraham, Katherine G.; Taylor, Susan K. AA Abraham: University of Maryland and National Bureau of Economic Research. Taylor: University of Maryland, College Park. SR National Bureau of Economic Research Working Paper: 4468; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 26. PR \$5.00. JE L22, L23. KW Contracting Out. Business Support Services.

AB A firm's decision to contract out for business support services may be influenced by the wage and benefit savings it could realize, the volatility of its output demand and the availability of specialized skills possessed by the outside contractor. Analysis of newly-available establishment-level data shows that all three of these factors help to explain observed contracting behavior. The reported empirical findings are relevant both for understanding the recent growth in business support service contracting and for understanding firms' relationships with their own employees.

### Acemoglu, Daron

PD July 1993. TI A Theory of Economic Fluctuations: Increasing Returns and Temporal Agglomeration. AU Acemoglu, Daron; Scott, Andrew. AA Acemoglu: London School of Economics. Scott: All Souls College Oxford and London School of Economics. SR London School of

Economics Centre for Economic Performance Discussion Paper: 163; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 30. PR no charge. JE E32. KW Business Cycles. Asymmetric Cycles.

AB A competitive business cycle model is developed in which internal increasing returns translate a white noise random shock into temporally agglomerated economic activity. The qualitative nature of the economy varies over the cycle due to changes in the underlying economic structure, giving rise to asymmetries between expansions and contractions and necessitating a state space formulation for the model. Because of the nature of the increasing returns, our model displays considerable persistence as the response of the economy to a given shock depends upon the current state of the economy, which in turn is a function of previous disturbances. Our findings of qualitative differences, asymmetries and temporal agglomeration remain when we allow for aggregation over heterogeneous agents. In this case interactions between aggregate time series and cross sectional events play an important role in determining the form of output dynamics and the nature of cyclical asymmetries.

### Alesina, Alberto

PD September 1993. TI The Political Economy of Capital Controls. AU Alesina, Alberto; Grilli, Vittorio; Milesi-Ferretti, Gian-Maria. AA Alesina: Harvard University, Centre for Economic Policy Research and National Bureau of Economic Research. Grilli: Birkbeck College, Centre for Economic Policy Research and National Bureau of Economic Research. Milesi-Ferretti: International Monetary Fund and London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 169; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 23. PR no charge. JE E62, E63, F21, F32. KW Capital Controls. Political Economy.

AB This paper studies the institutional and political determinants of capital controls in a sample of 20 OECD countries for the period 1950-1989. One of the most interesting results is that capital controls are more likely to be imposed by strong governments which have a relatively "free" hand over monetary policy, because the Central Bank is not very independent. By imposing capital controls, these governments raise more seigniorage revenue and keep interest rates artificially low. As a result, public debt accumulates at a slower rate than otherwise. This suggests that an institutional reform which makes the Central Bank more independent make it more difficult for the government to finance its budget. The tightening of the fiscal constraint may force the government to

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adjust toward a more sound fiscal policy. We also found that, as expected and in accordance with the theory, capital controls are more likely to be introduced when the exchange rate is pegged or managed.

PD October 1993. TI Income Distribution, Political Instability, and Investment. AU Alesina, Alberto; Perotti, Roberto. AA Alesina: Harvard University and National Bureau of Economic Research. Perotti: Columbia University. SR National Bureau of Economic Research Working Paper: 4486; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 19. PR \$5.00. JE D31, E22. KW Income Inequality. Political Unrest.

AB This paper successfully tests on a sample of 70 countries for the period 1960-85 the following hypotheses. Income inequality, by fueling social discontent, increases socio-political instability. The latter, by creating uncertainty in the politico-economic environment, reduces investment. As a consequence, income inequality and investment are inversely related. Since investment is a primary engine of growth, this paper identifies a channel for an inverse relationship between income inequality and growth. We measure socio-political instability with indices which capture the occurrence of more or less violent phenomena of political unrest and we test our hypotheses by estimating a two-equation model in which the endogenous variables are investment and an index of socio-political instability. Our results are robust to sensitivity analysis on the specification of the model and the measure of political instability, and are unchanged when the model is estimated using robust regression techniques.

### Allen, Steven G.

PD August 1993. TI Post-Retirement Increases in Pensions in the 1980's: Did Plan Finances Matter? AU Allen, Steven G.; Clark, Robert L.; McDermed, Ann A. AA Allen: North Carolina State University and National Bureau of Economic Research. Clark and McDermed: North Carolina State University. SR National Bureau of Economic Research Working Paper: 4413; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 29. PR \$5.00. JE G23. KW Pension Benefits. Financial Performance.

AB Many firms give post-retirement increases in pension benefits to retirees even though the pension contract does not require such increases. A leading explanation of this behavior is that benefit increases are part of an implicit contract where retirees accept lower initial benefits in return for the option of receiving a share of the plan's financial returns above the risk-free rate. The paper reports mixed evidence on the linkage between the financial performance of pension plans and post-retirement increases. Between 1980 and 1985, benefit increases were larger in plans with high funding ratios and lofty rates of return. However, the practice of giving post-retirement increases became much less widespread in the 1980's, despite dramatically improved financial performances across all pension plans.

### Alvarez, Fernando

PD October 1992. TI Banking in Computable General Equilibrium Economies: Technical Appendices I and II. AU Alvarez, Fernando; Fitzgerald, Terry. AA Federal Reserve Bank of Minneapolis and University of Minnesota. SR Federal Reserve Bank of Minneapolis Staff Report: 155;

Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 36. PR no charge. JE C63, C68, C81, E37. KW Aggregate Financial Data. Computation Algorithm. Heterogeneity.

AB These are the technical appendixes for "Banking in Computable General Equilibrium Economies: by Javier Diaz-Gimenez, Edward C. Prescott, Terry Fitzgerald, and Fernando Alvarez, in *Journal of Economic Dynamics and Control* 16 (1992), 533-59. Technical Appendix I, by Fernando Alvarez, describes the procedures used to construct the balance sheets reported in Table 1 and 2 in page 536 and 537 of the paper. Technical Appendix II, by Terry Fitzgerald, describes the computational procedures used in this paper.

### Andersen, Torben M.

PD September 1993. TI Testing for Insider-Outsider Effects. AU Andersen, Torben M.; Hylleberg, Svend. AA University of Aarhus. SR Aarhus Institute of Economics Memo: 1993-18; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. PG 23. PR no charge. JE J23, J41, E24, C51, C52. KW Insider-Outsider Model. Error Correction Model. Wage Determination.

AB This paper develops a new test strategy for evaluating the insider-outsider model explicitly building on the implications of the model for the adjustment to shocks. The basic conclusion of the insider-outsider model is that anticipated changes in variables relevant for labor demand are reflected in wages while unanticipated changes are reflected in employment. An error correction model of wage and employment formation is set up based on this distinction between the types of shocks. By applying this test method to the manufacturing sector in Denmark, it is found that employment changes react to unanticipated changes in the state variables as predicted by the theory. The wage equation, however, contains both anticipated changes and unanticipated changes in the state variables. In addition, lagged employment seems to have a negative effect on wages in accordance with the prediction of insider models.

PD September 1993. TI Progressive Income Taxation and Labour Market Incentives. AU Andersen, Torben M.; Rasmussen, Bo Sandemann. AA University of Aarhus. SR Aarhus Institute of Economics Memo: 1993-19; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. PG 27. PR no charge. JE J31, J41, H24, H31. KW Wage Determination. Income Tax. Marginal Tax Rate.

AB The paper provides an overview of how the structure of income taxation (average and marginal taxes) affects employment and wage formation. Restructuring income taxation by lowering marginal taxes would unambiguously enhance individual incentives to work and to shift between jobs (mobility). This provides the starting point for an evaluation of how taxation affects wages and employment under different assumptions concerning the institutional setting of the labor market. Specifically, we consider labor markets characterized by i) perfect competition, ii) centralized wage setting, iii) insider-outsider conflicts and iv) efficiency wage considerations.

### Anderson, Gerard F.

TI Uncertain Demand, the Structure of Hospital Costs, and the Cost of Empty Hospital Beds. AU Gaynor, Martin; Anderson, Gerard F.

**Applbaum, Arthur Isak**

PD March 1993. TI The Remains of the Role. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-9; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 25. PR \$5.00. JE D72, D73. KW Public Officials. Loyalty. Public Series.

AB An ethic of strict loyalty and obedience for career public officials offered by a British civil servant, Sir Michael Quinlan, is criticized. Such an ethic is shown to rely on an insufficiently analyzed account of what justifies a division of moral labor between elected and unelected officials. The structure of role-relative, person-neutral moral prescriptions is illustrated with Kazuo Ishiguro's account of the professional ethic of butlers. The conditions under which politicians have legitimate authority, unelected officials are obligated to obey such authority, and unelected officials are justified in disobedience to such authority are examined. The supposition that personal morality has no place in public service is shown, under plausible accounts of what is meant by "personal" to not preclude official dissent based on public, political principles. It is argued that, although the fair play principle, put forward by H.L.A. Hart and John Rawls, may obligate public officials in ways that ordinary citizens are not obligated, fair play does not rule out a public official's principled disobedience.

**Arnott, Richard**

PD November 1993. TI Information and Economic Efficiency. AU Arnott, Richard; Greenwald, Bruce; Stiglitz, Joseph E. AA Arnott: Boston College and National Bureau of Economic Research. Greenwald: Columbia University. Stiglitz: Stanford University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4533; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 14. PR \$5.00. JE D80, D82, D62, D52. KW Moral Hazard. Adverse Selection. Efficiency.

AB Is an economy with adverse selection, moral hazard or an incomplete set of risk markets "constrained" Pareto efficient? There are two sets of papers addressing this question, one asserting that, under seemingly quite general conditions, the economy is constrained Pareto efficient, the other (to which we have contributed) that it is not. In this paper, we delineate the differences in assumptions between the two sets of papers, and under our assumptions present an intuitive proof of the Pareto inefficiency of market equilibrium with moral hazard and identify what it is that the government can do that the market cannot.

**Ashenfelter, Orley**

PD August 1993. TI Estimates of the Returns to Schooling from Sibling Data: Fathers, Sons, and Brothers. AU Ashenfelter, Orley; Zimmerman, David J. AA Ashenfelter: Princeton University. Zimmerman: Williams College. SR Princeton Industrial Relations Section Working Paper: 381; Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 15. PR \$1.50. JE J31. KW Education. Family Background. Measurement Error. Correlated Random Effects.

AB In this paper we use data on brothers, and fathers and sons, to estimate the economic returns to schooling. Our goal is to determine whether the correlation between earnings and schooling is due, in part, to the correlation between family

backgrounds and schooling. The basic idea is to contrast the differences between the schooling of brothers, and fathers and sons, with the differences in their respective earnings. Since individuals linked by family affiliation are more likely to have similar innate ability and family backgrounds than randomly selected individuals our procedure and provides a straightforward control for unobserved family attributes. Our empirical results indicate that in the sample of brothers the ordinary least squares estimates of the return to schooling may be biased upward by some 25% by the omission of family background factors. Adjustments for measurement error, however, imply that the intrafamily estimate of the returns to schooling is biased downward by about 25% also, so that the ordinary least square estimate suffers from very little overall bias. Using data on fathers and sons introduces some ambiguity into these findings, as commonly used specification tests reject our simplest models of the role of family background in the determination of earnings.

PD October 1993. TI Estimates of the Returns to Schooling from Sibling Data: Fathers, Sons, and Brothers. AU Ashenfelter, Orley; Zimmerman, David J. AA Ashenfelter: Princeton University and National Bureau of Economic Research. Zimmerman: Williams College. SR National Bureau of Economic Research Working Paper: 4491; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 17. PR \$5.00. JE I20, I21. KW Schooling. Education.

AB In this paper we use data on brothers, and fathers and sons, to estimate the economic return to schooling. Our goal is to determine whether the correlation between earnings and schooling is due, in part, to the correlation between family backgrounds and schooling. The basic idea is to contrast the differences between the schooling of brothers, and fathers and sons, with the difference in their respective earnings. Since individuals linked by family affiliation are more likely to have similar innate ability and family backgrounds than randomly selected individuals our procedure provides a straightforward control for unobserved family attributes. Our empirical results indicate that in the sample of brothers the ordinary least squares estimates of the return to schooling may be biased upward by some 25% by the omission of family background factors. Adjustments for measurement error, however, imply that the intrafamily estimate of the returns to schooling is biased downward by about 25% also, so that the ordinary least squares estimate suffers from very little overall bias.

**Atkeson, Andrew**

PD July 1993. TI Social Insurance and Transition. AU Atkeson, Andrew; Kehoe, Patrick J. AA Atkeson: University of Chicago and National Bureau of Economic Research. Kehoe: University of Pennsylvania and Federal Reserve Bank of Minneapolis. SR National Bureau of Economic Research Working Paper: 4411; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 28. PR \$5.00. JE J65, J63, J64, J60. KW Social Insurance. Unemployment. Layoffs.

AB We study the general equilibrium effects of social insurance on transition in a model in which the process of moving workers from matches in the state sector to new matches in the private sector takes time and involves uncertainty. We find that adding social insurance may slow transition. When there are incentive problems in this rematching process, the optimal social insurance scheme may

involve forced layoffs and involuntary unemployment.

PD August 1993. TI Industry Evolution and Transition: The Role of Information Capital. AU Atkeson, Andrew; Kehoe, Patrick J. AA Atkeson: University of Chicago and National Bureau of Economic Research. Kehoe: Federal Reserve Bank of Minneapolis and University of Pennsylvania. SR Federal Reserve Bank of Minneapolis Staff Report; 162; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 21. PR no charge. JE O33, O47, P11, P27. KW Transitional Dynamics. Eastern Europe. Reform.

AB In this paper, we build a model of the transition following large-scale economic reforms that predicts both a substantial drop in output and a prolonged pause in physical investment as the initial phase of the optimal transition following the reform. We model reform as a change in policy which induces agents to close existing enterprises using old technologies of production and to open up new enterprises adopting new technologies of production. The central idea of our paper is that it is costly to close old enterprises and open new enterprises because, in doing so, information capital built up about old enterprises is lost and time must pass before information capital about new enterprises can be acquired. Thus, an acceleration of the pace of industry evolution leads in the short run to a net loss of information capital, a drop in productivity, a recession, and a fall in physical investment. We calibrate our model of industry evolution, evolution, information capital, and transition to match micro data on industry evolution in the United States, Japan, and the former communist countries of Europe. We find that the loss of information capital that accompanies a major acceleration in the pace of industry evolution in an economy leads initially to a decade of recession and a five year pause in physical investment before the benefits of reform are realized.

#### Averett, Susan

PD November 1993. TI The Economic Reality of The Beauty Myth. AU Averett, Susan; Korenman, Sanders. AA Averett: Lafayette College. Korenman: University of Minnesota and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4521; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 25. PR \$5.00. JE J70, J31. KW Earnings Differentials. Body Weight. Appearance.

AB We investigate income, marital status, and hourly pay differentials by body mass (kg/m<sup>2</sup>) in a sample of 23 to 31 year olds drawn from the 1988 NLSY. Obese women have lower family incomes than women whose weight-for-height is in the "recommended" range. Results for men are weaker and mixed. We find similar results when we compare same-sex siblings in order to control for family background (e.g. social class) differences. Differences in economic status by body mass for women increase markedly when we use an earlier weight measure or restrict the sample to persons who were single and childless when the early weight was reported. There is some evidence of labor market discrimination against obese women. However, differences in marriage probabilities and in spouse's earnings account for 50 to 95 percent of their lower economic status. There is no evidence that obese African American women suffer an economic penalty relative to other African American women.

#### Backhouse, Roger E.

PD January 1991. TI Lakatos and Economics. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-04; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 17. PR 2 pounds. JE B41. KW Economic Methodology. Scientific Research Programs. Appraisal.

AB This paper presents a survey of the recent criticisms made by economists of Lakatos' methodology of scientific research programs. It is argued that the three components of this methodology (namely the definition of a research program; the appraisal criterion; and the methodology of historical research programs) should be evaluated separately. After evaluating the various criticisms, the suggestion is made that we should explore research programs defined in ways other than those suggested by Lakatos, but that Lakatos' appraisal criterion should be retained.

PD July 1991. TI Mathematics and the Axiomatization of General Equilibrium Theory. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-09; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 15. PR 2 pounds. JE B21, D50, C62. KW General Equilibrium. History of Thought.

AB This review of the "Invisible Hand: Economic Equilibrium in the History of Science," by Bruna Ingrao and Giorgio Israel, focuses on three episodes discussed in the book: Condorcet's "social mathematics", the marginal revolution, and the recent literature on existence, uniqueness and stability of general equilibrium dating from the 1930's. It is suggested that Ingrao and Israel are right to relate developments in economics over the past half-century to parallel developments in mathematics, and that this explanation of the formalization of economic theory is more persuasive than Mirowski's explanation in terms of imitating physics. Ingrao's and Israel's conclusion that the research program defined by the problems of existence, uniqueness and stability of general equilibrium has failed according to its own criteria is placed in the context of recent statements on the subject by Gerard Debreu and Frank Hahn. It is argued, however, that the failure of this program has minimal implications for the bulk of neoclassical economic theory.

PD July 1991. TI Rhetoric and Methodology. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-10; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 18. PR 2 pounds. JE B41. KW Economic Methodology. Rhetoric. History of Thought.

AB The last decade has seen an explosion of writing on the rhetoric of economics. In much of this literature, from McCloskey onwards, arguments about rhetoric have been used as arguments against methodology, at least as the term has traditionally been used. This paper provides a critical survey of these developments, bringing together contributions inspired by developments in a variety of other disciplines, focusing on the implications of rhetorical analysis for methodology. It seeks to distinguish more clearly than does the existing literature between those questions that are amenable to rhetorical analysis, and those questions for which methodological arguments are appropriate; and to clarify the nature of the

contributions that rhetoric and methodology can make towards our understanding of the history of economic thought.

PD July 1991. TI Fact, Fiction or Moral Tale? How Should We Approach the History of Economic Thought? AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-11; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 25. PR 2 pounds. JE B41, B20, B10. KW Methodology. Rhetoric. History of Thought.

AB This paper reviews the way in which constructivist or antirepresentationalist arguments have been used as an argument in favor of changing the way we write the history of economic thought. It is argued that though such arguments provide some important new perspectives on the subject, their use as a comprehensive methodological critique of "traditional" approaches to the subject rests on the theses that a non-foundationalist methodology is impossible, and that we can assume that contemporary economics is in a healthy state. If these theses are not accepted, the case against "traditional" histories collapses.

PD August 1991. TI The Constructivist Critique of Economic Methodology. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-12; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 37. PR 2 pounds. JE B41. KW Economic Methodology. Rhetoric.

AB This paper outlines the main elements of the constructivist, or anti-representationalist, critique of economic methodology. It is argued that, whatever insights may follow from this approach, the arguments that have been put forward do not undermine the case for methodology. Methodology can be defended in ways that do not require the existence of certain foundations for knowledge, and which are not vulnerable to the constructivist critique. It is concluded that methodological inquiry is needed and should not be allowed to wither away.

PD November 1991. TI The Debate over Milton Friedman's Theoretical Framework: An Economist's View. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-22; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 32. PR 2 pounds. JE B22, B41. KW Monetarism. Methodology. Rhetoric.

AB This paper, examines the controversy which took place between Milton Friedman and a group of critics over his theoretical framework for monetary analysis. It examines the rhetorical devices used by the various participants in the debate and points out the many issues that were tangled together. The reason why there was never any effective communication between the various participants is attributed to Friedman's failing adequately to articulate the unorthodox methodology which underlay his position. The different character of each of the four dialogues that make up the debate is explained in terms of the different methodological positions of Friedman's various critics.

PD November 1991. TI Rhetoric and Implicit Methodology: The Case of Milton Friedman. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-23; Department of Economics, University of Birmingham, Edgbaston,

Birmingham B15 2TT, UNITED KINGDOM. PG 22. PR 2 pounds. JE B31, B41. KW Methodology. Rhetoric. Quantity Theory.

AB This paper analyzes Milton Friedman's rhetoric as exhibited in a selection of his writings on the case for the quantity theory. It is argued that such an analysis makes clear the heterodox nature of his methodology, but it fails to reveal a coherent methodology. The implicit methodology suggested by such an analysis is compared with the methodological position worked out by Hirsch and de Marchi through the very different method of interpreting his methodological writing in the light of the way his economic inquiries have been undertaken. In the light of this comparison it is argued that economists' methodological pronouncements should be taken seriously as evidence, even if they are not taken at face value.

PD May 1992. TI Isolative Strategies and Controversy in Monetary Economics: Friedman and Tobin on the Quantity Theory. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-11; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 11. PR 2 pounds. JE B41, E40, E50. KW Methodology. Isolation. Abstraction.

AB Maki's analysis of how economists isolate the factors which are analyzed in their theories from those which they choose not to analyze is applied to Friedman's statement of the quantity theory, Tobin's statement of his general equilibrium approach to monetary theory, and to some examples of debate between Friedman and Tobin. This analysis shows that there is a clear difference between the isolative strategies pursued by Tobin and Friedman, which reveals differences in their attitudes to economic theorizing. Conclusions are also drawn concerning the usefulness of Maki's terminology to economics.

PD May 1992. TI J. A. Hobson as a Microeconomic Theorist. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-13; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 10. PR 2 pounds. JE B31, B21. KW Microeconomics. Competition. Classical Economics.

AB This paper appraises the analysis of competition contained in two articles on the subject Hobson published in the 1890's. It is argued that to view these from the perspective of contemporary, neoclassical microeconomics is to distort them, and that they should instead be viewed against the background of the classical concept of competition. It is further argued that when taken alongside other aspects of Hobson's economics (particularly his theory of the surplus and his monetary economics) this reinforces the view that Hobson's work should be seen as fundamentally classical in inspiration.

PD October 1992. TI The Significance of Replication in Econometrics. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-23; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 18. PR 2 pounds. JE B41, C10, C50. KW Econometrics. Testing. Replication.

AB This paper explores what might be meant by the term "replication" in economics. Drawing on recent contributions by Harry Collins and Nancy Cartwright, it is argued that replication, if it is to have epistemic significance, involves much more than applying the same econometric techniques to

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the same data set. It is argued that the fundamental problem in econometrics concerns whether or not two data sets can be drawn from the same population, an issue which cannot be settled simply on statistical criteria, but requires making judgements about economics. It is concluded that if econometricians want replication in economics to have the same significance as replication in natural sciences, they should be much more cautious in the way they use the term.

PD January 1993. TI Realism and the Prediction of Novel Facts in Economics. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-01; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 19. PR 2 pounds. JE B41. KW Methodology. Appraisal. Prediction.

AB This paper argues that economists such as Milton Friedman have been right to argue that successful prediction of novel facts is the main criterion by which economic theories should be appraised. It is suggested that many of the philosophical weaknesses which economic methodologists have found in this Lakatosian appraisal criterion stem from the adoption of a Popperian perspective according to which discovery and justification are rigidly separated. It is argued that it is our ability to intervene successfully in the economy which gives us confidence in our theories, and that given the peculiarities of economics this implies that the ability to predict novel facts is especially important in economics.

PD September 1993. TI The Lakatosian Legacy in Economic Methodology. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-14; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 18. PR 2 pounds. JE B41. KW Lakatos. Scientific Research Programs. Methodology.

AB This paper takes stock of recent criticisms of Lakatos' methodology of scientific research programs. It concludes that there are problems with the details of Lakatos' methodology, in particular the way in which he sought to characterize research programs, but that the methodology of scientific research programs still provides a valuable starting point. In particular it preserves a suitable tension between normative and positive methodology.

PD November 1993. TI The Fixation of Economic Beliefs. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-15; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 11. PR 2 pounds. JE B41. KW Disagreement. Methodology. Empirical Evidence.

AB This paper uses the framework provided by C. S. Peirce's paper, "The Fixation of Belief," to address the question of disagreement in economics. It explores the various means by which economists settle disputes, arguing that the main problem is the weakness of the constraints imposed by empirical evidence on economic theorizing. Disagreement in economics is thereby explained in terms of certain characteristics of the discipline.

**Backus, David K.**

PD October 1993. TI International Business Cycles: Theory and Evidence. AU Backus, David K.; Kehoe, Patrick J.; Kydland, Finn E. AA Backus: New York University and

National Bureau of Economic Research. Kehoe: University of Pennsylvania. Kydland: Carnegie Mellon University. SR National Bureau of Economic Research Working Paper: 4493; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 23. PR \$5.00. JE E32, F00, E20. KW Business Cycles.

AB We review recent work comparing properties of international business cycles with those of dynamic general equilibrium models, emphasizing two discrepancies between theory and data that we refer to as anomalies. The first is the consumption/output/productivity anomaly: in the data we generally find that the correlation across countries of output fluctuations is larger than the analogous consumption and productivity correlations. In theoretical economies we find, for a wide range of parameter values, that the consumption correlation exceeds the productivity and output correlations. The second anomaly concerns relative price movements: the standard deviation of the terms of trade is considerably larger in the data than it is in theoretical economies. We speculate on changes in theoretical structure that might bring theory and data closer together.

**Bailey, Ralph W.**

PD 1991. TI Invertible Distributions. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-05; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 17. PR 2 pounds. JE C10. KW Inversion Theorem. Radial Distribution.

AB For radially distributed complex random variables, the Inversion Theorem takes a completely symmetric form. For many such variables (for instance the radial normal and  $t$ ), the ("radial") characteristic function may also be regarded as a ("radial") distribution function and vice-versa, so that we have a dual pair of "invertible" distributions. Products, ratios, sums and "radial minima" of invertible random variables, and Mellin transforms of their radial distribution and characteristic functions have striking closure and inversion properties. An important (exhaustive?) subset of invertible distributions is the "normally-divisible" set. The properties of such distributions are elucidated by the theory of completely monotone functions developed by Bernstein and others.

PD April 1992. TI The Box-Muller Method and the  $t$ -Distribution. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-09; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 3. PR 2 pounds. JE C10. KW Uniform Distribution. Student Distribution.

AB The method of Box and Muller uses two independent uniform variates in order to generate two independent normal variates. Their method can be modified so that two variates from Student's  $t$  distribution with parameter  $v$  are generated. The two variates are not independent. A further modification yields two independent  $t$ -variates, one of which has parameter  $v$  and the other has parameter  $v + 1$ .

**Baker, George**

PD September 1993. TI Subjective Performance Measures in Optimal Incentive Contracts. AU Baker, George; Gibbons, Robert S.; Murphy, Kevin J. AA Baker and Murphy: Harvard University. Gibbons: Cornell University

and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4480; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 33. PR \$5.00. JE L14. KW Performance Evaluation. Objective Measures.

AB Objective measures of performance are seldom perfect. In response, incentive contracts often include important subjective components that mitigate incentive distortions caused by imperfect objective measures. This paper explores the combined use of subjective and objective performance measures in (respectively) implicit and explicit incentive contracts. Naturally, objective and subjective measures often are substitutes, sometimes strikingly so: we show that if objective measures are sufficiently close to perfect then no implicit contracts are feasible (because the firm's fallback position after renegeing on an implicit contract is too attractive). We also show, however, that objective and subjective measures can reinforce each other: if objective measures become more accurate then in some circumstances the optimal contract puts more weight on subjective measures (because the improved objective measures increase the value of the ongoing relationship, and so reduce the firm's incentive to renege).

#### Baldwin, Richard

PD September 1993. TI A Domino Theory of Regionalism. AA Graduate Institute of International Studies, Geneva, and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4465; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 19. PR \$5.00. JE F13, F15. KW Trade Agreements. Regional Liberalization.

AB Regional liberalization sweeps the globe like wildfire while multilateral trade talks proceed at a glacial pace. Why are countries eager to liberalize regionally but reluctant to do so multilaterally? Recent regionalism is caused by two idiosyncratic events multiplied by a domino effect. The triggering events - the U.S.-Mexico FTA and the EC's 1992 program - had nothing to do with GATT's health. The domino effect is simple. Political equilibria determine governments' stances on regional liberalization. Domestic exporters to regional blocs are a powerful pro-membership constituency. An event that triggers closer integration within an existing bloc harms the profits of nonmember exporters, thus stimulating them to boost their pro-membership political activity. The extra activity alters the political equilibrium, leading some countries to join. This enlargement further harms nonmember exporters since they now face a disadvantage in a greater number of markets. This second round effect brings forth more pro-membership political activity and a further enlargement of the bloc.

#### Bardhan, Pranab

PD October 1993. TI The Implications of New Growth Theory for Trade and Development: An Overview. AA University of California, Berkeley. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-027; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 13. PR no charge. JE F12, F43, O31, O34. KW Technological Progress. R&D. Learning by Doing.

AB This paper attempts a brief critical assessment of the

contributions of the so-called new growth theory to the literature of trade and development, particularly from the point of view of a poor country. It also suggests directions in which future research in this area will be productive.

#### Barrett, C. R.

PD January 1992. TI The Price of Water Under the Lesotho Highlands Water Project. AU Barrett, C. R.; Senaoana, P. M. AA Barrett: University of Birmingham. Senaoana: National University of Lesotho and University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-01; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 11. PR 2 pounds. JE C78, D61, D82, H42, Q25. KW Joint Resource Project. Contract Theory. Nash Bargaining Solution.

AB The paper examines the agreement between Lesotho and South Africa, on the transfer of water under the Lesotho Highlands Water Project, in the light of contract theory and the Nash bargaining solution.

PD May 1992. TI Nash, Rubinstein and Continuous Bargaining. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-12; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 13. PR 2 pounds. JE C78. KW Continuous Bargaining. Recursive Nash Solution.

AB The paper shows that, given attrition of the object of bargaining, and provided bargaining can continue until the pay-offs from a bargain "vanish", in the framework adopted the Nash and Rubinstein continuous bargaining models lead to the same outcome. A simple characterization of the case of no discounting, but positive bargaining costs, is given.

PD July 1992. TI On Two Classes of Differentiable Inequality Measures. AU Barrett, C. R.; Salles, Maurice. AA Barrett: University of Birmingham. Salles: Universite de Caen. SR University of Birmingham Department of Economics Discussion Paper: 92-16; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 21. PR 2 pounds. JE D63, I32. KW Absolute Inequality. Relative Inequality. Poverty.

AB This paper examines the classes of absolute and relative inequality measures determined by two independence conditions concerning transfers of income, multi-attribute extensions of such measures, and adaptation of the weight function involved to obtain poverty measures.

PD August 1992. TI On a Generalization of the Gini Coefficient. AU Barrett, C. R.; Salles, Maurice. AA Barrett: University of Birmingham. Salles: Universite de Caen. SR University of Birmingham Department of Economics Discussion Paper: 92-19; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 12. PR 2 pounds. JE D63. KW Inequality Measures. Weight Function. Poverty Measure.

AB The paper uses an independence axiom to characterize a one parameter class of inequality measures which includes the Gini coefficient. A related poverty measure is also characterized.

**Bartelsman, Eric J.**

PD August 1993. TI Joint Seasonal Adjustment of Economic Time Series. AU Bartelsman, Eric J.; Cleveland, William P. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-28; C/O Simon G. Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 26. PR no charge. JE C30. KW Seasonal Adjustment. Common Features. Principal Components.

AB In this paper we explore a method of seasonally adjusting groups of series whose seasonal behavior exhibit "common features" in the sense of Engle and Kozicki. The method takes as an input disaggregated not seasonally adjusted series and corresponding seasonal factors, and uses principal components analysis to provide a basis for a second stage projection of the disaggregated seasonal factors onto a reduced space. This method improves the efficiency of the seasonal factor estimate of the aggregate and provides consistency between the seasonally adjusted pieces. The method provides results which are consistent with an earlier study by Geweke, without requiring identification of the joint distribution of all the seasonal and non-seasonal parts of all the series.

**Basu, Susanto**

PD January 1993. TI Estimating the Cyclicity of Marginal Costs Directly. AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-18; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 26. PR \$4.00; payable to the Department of Economics. JE L60, E32, L16. KW Business Cycles. Marginal Costs. Manufacturing.

AB This paper studies the cyclical behavior of marginal costs by examining changes in a constructed measure of total costs in response to changes in output. The main result is that marginal costs in U.S. manufacturing appear close to constant at annual frequency. This conclusion contrasts with previous work that has found marginal costs to be strongly procyclical. The finding of non-increasing marginal cost is robust to considerations of various types of bias, and issues of cyclical measurement error. The methodology of the paper is shown to be valid under different assumptions about economic behavior such as labor hoarding, increasing marginal prices of inputs, and the existence of fixed costs of production. The results do not support the hypothesis that marginal costs are constant over the business cycle because of large productive spillovers in manufacturing that are external at the two-digit level.

PD April 1993. TI Constant Returns and Small Markups in U.S. Manufacturing. AU Basu, Susanto; Fernald, John G. AA Basu: University of Michigan. Fernald: Harvard University. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-19; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 23. PR \$4.00; payable to the Department of Economics. JE L60, D24, L13. KW Returns to Scale. Imperfect Competition.

AB We reexamine Robert Hall's recent finding of increasing returns in U.S. manufacturing. With gross output data at roughly the two-digit SIC level, we estimate that returns to scale are close to constant. We show why, with imperfect competition, value-added data lead to biased estimates of returns to scale, and hence why Hall's results are easily

explained. We show how to control for value-added bias by combining Hall's data with data on intermediate input use: using Hall's data with this correction, returns to scale again appear to be constant. We also estimate that the average markup of price over marginal cost is about 15 percent.

PD August 1993. TI Are Apparent Productive Spillovers a Figment of Specification Error. AU Basu, Susanto; Fernald, John G. AA Basu: University of Michigan. Fernald: Harvard University. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-22; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 25. PR \$4.00; payable to the Department of Economics. JE L60, E23, L13, C52. KW Sectoral Output. Imperfect Competition.

AB Using data on gross output for two-digit manufacturing industries, we find that an increase in the output of one manufacturing sector has little or no significant effect on the productivity of other sectors. Using value-added data, however, we confirm the results of previous studies which find that output spillovers instead appear large. We provide an explanation for these differences, showing why, with imperfect competition and increasing returns, the use of value-added data leads to a spurious finding of large apparent external effects.

PD September 1993. TI Intermediate Goods and Business Cycles: Implications for Productivity and Welfare. AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-23; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 27. PR \$4.00; payable to the Department of Economics. JE L16, L13. KW Intermediate Goods. Productivity. Price Rigidity.

AB This paper studies a business-cycle model with imperfect competition where intermediate goods are used in production. It is an example of a class of models in which markups are countercyclical. One major result is that in this setting, demand-driven output movements cause productivity to be procyclical. The paper studies a number of theoretical and empirical implications of this source of productivity fluctuations. In a subset of models, countercyclical markups result from assuming that there are fixed costs of changing nominal prices. The paper shows that modeling the use of intermediate goods in this type of model greatly expands the extent of price rigidity, leading to larger welfare losses from business cycles.

PD October 1993. TI Procyclical Productivity: Overhead Inputs or Cyclical Utilization? AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-25; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 26. PR \$4.00; payable to the Department of Economics. JE E23, E32. KW Capital Utilization. Labor Utilization. Labor Hoarding.

AB It has long been argued that cyclical fluctuations in labor and capital utilization and overhead labor and capital are important for explaining procyclical productivity. Here I present two simple and direct tests of these hypotheses, and a way of measuring the relative importance of these two explanations. The intuition behind the paper is that materials input is likely to be measured with less cyclical error than labor and capital input, and materials are likely to be used in strict proportion to value added. In that case, materials growth



provides a good measure of the unobserved changes in capital and labor input. I find that labor hoarding and cyclical capital utilization are quantitatively significant: the true growth of variable labor and capital inputs is, on average, almost twice the measured change in the capital stock or labor hours. More than half of that is caused by the presence of overhead inputs in production; the rest is due to cyclical factor utilization.

#### Bayoumi, Tamim

TI The Political Economy of Fiscal Restrictions: Implications for Europe from the United States. AU Eichengreen, Barry; Bayoumi, Tamim.

#### Bellmann, Lutz

PD June 1993. TI Industry and Firm Size Wage Differentials and Employment in Eastern Germany. AA Institute for Employment and Research, Nuremberg. SR London School of Economics Centre for Economic Performance Discussion Paper: 156; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 15. PR no charge. JE J31, J40, O52. KW Economic Transition. Wage Structure. Wage Competition.

AB Dramatically declining employment and rising unemployment rates have characterized the labor market in Eastern Germany since economic, monetary and social union. This is the first empirical study which analyzes the development of the wage structure after that union. The Labour Market Monitor is used to estimate the extent of job turnover and wage differentials attributable to industries and firm size. It is then examined whether a positive association between wage changes and employment change exists, as postulated by wage competition models. However, the job competition model assumes that wages are one of the most constrained instruments for adjusting shortages (and surpluses) of labor. In this model high wage firms need only to open vacancies in order to expand employment. Empirically, we find that the changes in the pattern of industrial wage differentials are consistent with the job competition model, whereas the firm size wage differential reflect the interplay of short-run shifts in labor demand and supply curves.

#### Beltratti, Andrea

PD August 1993. TI Sustainable Growth and the Green Golden Rule. AU Beltratti, Andrea; Chichilnisky, Graciela; Heal, Geoffrey. AA Beltratti: University of Turin. Chichilnisky: Columbia University. Heal: Columbia University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4430; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 29. PR \$5.00. JE Q20, Q21, O40. KW Environmental Asset. Ecological Dynamics. Growth.

AB We study a growth model with an environmental asset which is a source of utility and an input to consumption and production. The stock of this asset follows its own ecological dynamics, which are affected by economic activity. We study the implications of an approach to ranking sequences of consumption and environment over time that place weight both on the characteristics of the sequence over any finite period and on its very long run or limiting characteristics. Chichilnisky has called these "sustainable preferences". The criterion shows more intertemporal symmetry than the discounted utilitarian

approach, which clearly emphasizes the immediate future at the expense of the long run. In this respect Chichilnisky's criterion captures some of the concerns of those who argue for sustainability and for a heightened sense of responsibility to the future. To characterize optimal paths we define the "green golden rule", the path which maximizes long-run sustainable utility from consumption and environment.

#### Berger, Allen N.

TI Do Consumers Pay for One-Stop Banking? Evidence from a Non-Standard Revenue Function. AU Pulley, Lawrence B.; Berger, Allen N.; Humphrey, David B.

#### Bergstrom, Ted

PD July 1993. TI On the Evolution of Altruistic Ethical Rules for Siblings. AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-17; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 21. PR \$4.00; payable to the Department of Economics. JE C70, D63. KW Evolutionary Biology. Cultural Evolution. Altruism.

AB The work reported here is intended to be a contribution both to economics and to evolutionary biology. At the most direct level this is a contribution to the economics of the family, offering an evolutionary explanation for the degree of altruism to be expected between siblings. The biological model of evolution with kin selection is likely to interest economists for its own sake. This is an elegant logical structure, sufficiently similar to models of economic equilibrium to strike chords of familiarity, yet sufficiently different to inspire fresh ways of thinking about economic and social problems. The synthesis of Darwinian evolution with the Mendelian model of diploid inheritance is a rich prototype for cultural evolution, where norms and culture arise as people copy the actions of others to whom they are related through social rather than biological structures.

PD November 1993. TI The Political Economy of Subsidized Day Care. AU Bergstrom, Ted; Blomquist, Soren. AA Bergstrom: University of Michigan. Blomquist: Uppsala University. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-30; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 14. PR \$4.00; payable to the Department of Economics. JE H42, H53, D78. KW Subsidies. Day Care. Labor Force Participation.

AB A mother's decision about whether to join the labor force depends critically on a comparison of her after tax earnings with the out-of-pocket cost of day care. As we will demonstrate, it can happen that public subsidies of day care will "pay for themselves" by inducing higher labor force participation of mothers who then pay taxes that are more than sufficient to pay for the cost of the subsidies. Our approach to the political economy of day care is to analyze the preferred level of day care for various specific interest groups in the economy: purely selfish individuals without children in day care, purely selfish individuals with children in day care, and people who have some willingness to pay for the well being of other people's children.

PD November 1993. TI Benefit-Cost Analysis and Distortionary Taxes: A Public Choice Approach. AA University of Michigan. SR University of Michigan

Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-31; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 9. PR \$4.00; payable to the Department of Economics. JE H41, D70, H20. KW Public Goods. Social Welfare Functions.

AB It is the purpose of this paper to show that benefit-cost analysis under distortionary taxes yields clean, decisive results that are better understood without the artifice of social welfare functions. The paper seeks useful conditions relating individual preferences to willingness to support specific government tax-expenditure proposals. This discussion follows Wicksell in considering only tax-expenditure proposals that specifically tie expenditures to taxes that finance them. The target of this effort is an empirically meaningful formula that quantifies Pigou's advice on discounting the public benefits paid for by distortionary taxes.

#### Bernhardt, Dan

PD October 1993. TI Splitting Orders. AU Bernhardt, Dan; Hughson, Eric. AA Bernhardt: Queen's University. Hughson: California Institute of Technology. SR Queen's Institute for Economic Research Discussion Paper: 888; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 28. PR \$3.00 + GST Canada; \$3.50 U.S. and Foreign. JE G10, G14, G18. KW Market Microstructure. Market Makers. Split Orders.

AB A standard presumption of market microstructure models is that competition between risk neutral market makers inevitably leads to price schedules that leave market makers zero expected profits conditional on the order flow. This paper shows that this result does not hold when traders can split orders between market makers. When traders can split orders, market makers set less competitive price schedules that earn them strictly positive profits and hence raise trading costs. Indeed, if noise traders have completely inelastic demands (as in Kyle 1985), market makers want to set arbitrarily uncompetitive price schedules: no equilibrium exists. Our results imply that if feasible, regulation banning order splitting on an exchange is optimal. Analogous results obtain when price schedules are set by any finite number of agents who compete using limit orders. Further, since limit orders, by their very nature, are split against incoming market orders, the analysis suggests that regulated market maker competition will provide better prices.

#### Bertola, Giuseppe

PD September 1993. TI Cross Sectional Efficiency and Labor Hoarding in a Matching Model of Unemployment. AU Bertola, Giuseppe; Caballero, Ricardo J. AA Bertola: Princeton University and National Bureau of Economic Research. Caballero: Massachusetts Institute of Technology and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4472; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 22. PR \$5.00. JE J64, J22, J41. KW Sectoral Shocks. Search Costs. Job Security.

AB We study positive and normative aspects of steady-state equilibrium in a market where firms of endogenous size experience idiosyncratic shocks and undergo a costly search process to hire their workers. The stylized model we propose highlights interactions between job-security provisions and sectoral shocks in determining the natural rate of

unemployment, the allocation of labor, and the extent of labor hoarding, and rationalizes cross-sectional asymmetries of gross employment flows at the firm level. In our model, where productivity and search costs are dynamically heterogeneous across firms, decentralized wage bargains imply important cross-sectional inefficiencies, which overshadow the static search inefficiencies on which simpler models focus.

#### Besley, Timothy

PD October 1993. TI Fiscal Anarchy in the U.K. Modelling Poll Tax Noncompliance. AU Besley, Timothy; Preston, Ian; Ridge, Michael. AA Besley: Princeton University and National Bureau of Economic Research. Preston and Ridge: Institute for Fiscal Studies. SR National Bureau of Economic Research Working Paper: 4498; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 18. PR \$5.00. JE H20, H26. KW Poll Tax. Tax Compliance.

AB The U.K.'s experience with the poll tax reminds us that even in an economy with a relatively well developed detection and legal system, one cannot take tax compliance for granted. The experience of the poll tax provides a unique opportunity to study many dimensions of tax compliance. We model nonpayment rates in a short panel of data on the 366 English local authorities. The transparent observability of individual and aggregate liabilities makes reliable measurement of rates of nonpayment possible. Moreover, these rates rose to unprecedented levels as well as exhibiting considerable variation across authorities. This, together with the variation in local taxes both between districts and over time, creates an ideal opportunity for empirical investigation. Our empirical specification allows us to investigate the determinants of compliance as a function of authority characteristics from census and other geographical data. Moreover, the analysis takes seriously the possibility of neighborhood influences across authority boundaries. Our empirical results confirm the idea that higher taxes lead to larger compliance problems and that attempts to enforce compliance have a positive effect. Neighborhood effects on non-compliance were less conspicuous, figuring significantly, if at all, only in the final year.

#### Betts, Caroline M.

PD November 1993. TI A Small Open Economy in Depression: Lessons from Canada in the 1930's. AU Betts, Caroline M.; Bordo, Michael D.; Redish, Angela. AA Betts: Cornell University. Bordo: Rutgers University and National Bureau of Economic Research. Redish: University of British Columbia. SR National Bureau of Economic Research Working Paper: 4515; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 34. PR \$5.00. JE E32, F41, F40. KW Business Cycles. Output Fluctuation. International Linkages.

AB This paper tests the hypothesis that idiosyncratic U.S. disturbances and their international propagation can account for the global Depression. Exploiting common stochastic trends in U.S. and Canadian interwar data, we estimate a small open economy model for Canada that decomposes output fluctuations into sources identifiable with world and country-specific disturbances. We find that the onset, depth and duration of output collapse in both Canada and the U.S. are primarily attributable to a common, permanent output shock leaving little significant role for idiosyncratic disturbances

originating in either economy.

**Biddle, Jeff E.**

TI Beauty and the Labour Market. AU Hammermesh, Daniel S.; Biddle, Jeff E.

**Blanchflower, David G.**

PD August 1993. TI Did the Thatcher Reforms Change British Labour Market Performance? AU Blanchflower, David G.; Freeman, Richard B. AA Blanchflower: Dartmouth College, London School of Economics and National Bureau of Economic Research. Freeman: Harvard University, London School of Economics and National Bureau of Economic Research. SR London School of Economics Centre for Economic Performance Discussion Paper: 168; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 19. PR no charge. JE J38, J58, J68, J64. KW Labor Market Reform. Labor Policy.

AB In this paper we evaluate the success of policies that were implemented in the 1980's that were designed to improve the workings of the UK labor market. Our primary conclusion is that the Thatcherite reforms succeeded in their goals of weakening union power; may have marginally increased employment and wage responsiveness to market conditions and may have increased self-employment. They were accompanied by a substantial improvement in the labor market position of women. But the reforms failed to improve the responsiveness of real wages to unemployment; they were associated with a slower transition from nonemployment to employment for men; a devastating loss in full-time jobs for male workers and produced substantial seemingly noncompetitive increases in earnings inequality.

**Blank, Rebecca M.**

PD August 1993. TI When do Women Use AFDC & Food Stamps? The Dynamics of Eligibility vs. Participation. AU Blank, Rebecca M.; Ruggles, Patricia. AA Blank: Northwestern University and National Bureau of Economic Research. Ruggles: The Urban Institute. SR National Bureau of Economic Research Working Paper: 4429; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 39. PR \$5.00. JE I30, I35. KW AFDC. Food Stamps. Participation.

AB This paper investigates dynamic patterns in the relationship between eligibility and food stamp programs, using monthly longitudinal data from the Survey of Income and Program Participation. The results indicate that the majority of eligibility spells are relatively short, do not result in program participation, and end with increases in income. Participation is most likely to occur among women with lower current and future earning opportunities, and is also affected by locational and policy parameters. Those who elect to participate in these programs tend to start receiving benefits almost immediately upon becoming eligible, with little evidence of delayed program entry. A substantial number of women exit these programs before their eligibility ends; among at least some of these women it seems likely that there are unreported changes in income occurring. In 1989, if all eligible single-parents families had participated in AFDC and food stamps, benefit payments would have been \$13.5 billion higher.

**Blomquist, Soren**

TI The Political Economy of Subsidized Day Care. AU Bergstrom, Ted; Blomquist, Soren.

**Blomstrom, Magnus**

PD August 1993. TI Growth in a Dual Economy. AU Blomstrom, Magnus; Wolff, Edward N. AA Blomstrom: Stockholm School of Economics, National Bureau of Economic Research and CEPR. Wolff: New York University. SR National Bureau of Economic Research Working Paper: 4433; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 22. PR \$5.00. JE L60, O40, O47. KW Manufacturing. Growth. Labor Productivity. Establishment Size. Total Factor Productivity.

AB Growth and structural transformation of the manufacturing sector in developing countries are generally considered to be the result of the expansion of the "modern" (large-scale) sector relative to the "traditional" (small-scale) sector. Examining the sources of labor productivity growth in Mexican manufacturing, however, does not provide support for such a conclusion. Although we find that labor productivity levels vary almost in direct relation to establishment size, labor productivity growth shows no systematic variation by size class. In fact, small establishments have had the same rate of labor productivity growth as larger ones, partly because of the "excise-effect" (i.e. the exiting of low-productivity, small plants). Moreover, most of the variation in labor productivity across plant class sizes is found to be due to differences in capital intensity. The variation in TFP levels across size classes tends to be small. Thus, our results remove some justification of the policy measures that favor large firms in developing countries.

**Boadway, Robin W.**

PD October 1993. TI Evasion and Time Consistency in the Taxation of Capital Income. AU Boadway, Robin W.; Keen, Michael. AA Boadway: Queen's University. Keen: University of Essex. SR Queen's Institute for Economic Research Discussion Paper: 890; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 16. PR \$3.00 + GST Canada; \$3.50 U.S. and Foreign. JE H21, H26, H30. KW Time Inconsistency. Commitment. Tax Evasion.

AB Evasion and time inconsistency have been prominent concerns in recent discussions of capital income taxation, both theoretical and applied. This paper establishes a link between them, suggesting a potentially useful role for evasion additional to those previously identified: by committing to relatively lax enforcement, the government may be able to alleviate the welfare loss implied by its inability to commit to the tax rate. The scope for this role proves strikingly wide: it is optimal for the government to facilitate the evasion of the capital income taxes that it chooses to impose whenever the time consistent tax rate exceeds that which would be optimal if the government could commit to it.

**Boero, Gianna**

PD 1991. TI Controlling Greenhouse Gases: A Survey of Global Macroeconomic Studies. AU Boero, Gianna; Clarke, Rosemary; Winters, L. Alan. AA Clarke and Winters: University of Birmingham. Boero: University of Birmingham and University of Nottingham. SR University of

Birmingham Department of Economics Discussion Paper: 91-25; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 47. PR 2 pounds. JE Q25, Q28, Q30, Q43, Q48. KW Pollution Abatement. Energy. Fossil Fuels.

AB This paper surveys studies of the global macroeconomic costs of abating greenhouse gas emissions, particularly carbon dioxide. It sets out a conceptual framework which identifies the main factors influencing the costs of abatement, and then surveys the main modeling approaches and cost estimates. It seeks to explain the wide dispersion of the latter in terms of their assumptions concerning the key factors, as identified by the conceptual framework, and their choices of parameter values. It concludes that an abatement of 40 to 50 percent in carbon dioxide emissions relative to base might be expected to reduce GDP by no more than 3 percent.

PD December 1991. TI A Simple Non-Parametric Test for a Unit Root. AU Boero, Gianna; Burridge, Peter. AA Boero: University of Birmingham and University of Nottingham. Burridge: University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-26; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 8. PR 2 pounds. JE C12. C22. KW Drift. Dickey-Fuller Test.

AB The number of sign changes in the residuals from a regression of  $(Y(t) - Y(0))$  on  $t$  is proposed as a test of the null hypothesis that  $Y(t)$  is a random walk with drift. The test is invariant to the size of the drift under the null and of the trend under the usual alternative. The null distribution of the test statistic, and its power against stationary and trend-stationary alternatives are investigated by Monte Carlo experiment. The test performs remarkably well against the Dickey-Fuller test, which is also invariant to drift. The extent of agreement of the two tests under both null and alternatives is explored.

### Bogess, Scott

PD August 1993. TI Did Criminal Activity Increase During the 1980's? Comparisons Across Data Sources. AU Bogess, Scott; Bound, John. AA Bogess: The University of Michigan. Bound: The University of Michigan and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4431; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 24. PR \$5.00. JE H80, K14, K40, K42. KW Crime. Labor Market. s Incarceration.

AB There is a widely held belief that the level of serious criminal activity increased during the 1980's, particularly among the urban underclass. This increase has been mentioned as both a cause and consequence of the increasingly poor labor market prospects of less skilled workers. Significant increase in both Federal and State incarceration rates would seem to support this view. However, data from the Uniform Crime Reports (UCR) suggests only a mild increase in crime over this period, while the National Crime Survey (NCS) actually depicts lower levels of criminal activity. This paper carefully analyzes data from all three sources in an attempt to understand the nature of the series and to come to an informed opinion regarding the apparent differences in their trends. What we discover is that the large increase in the incarceration rate is attributable primarily to an increase in the likelihood of incarceration given arrest. During the latter part of the 1980's a dramatic increase in the number of arrests and incarcerations

for drug law violations also played an important role. The increase in drug related activity was not registered by either the UCR or NCS because neither series measures the incidence of victimless crime.

### Bohn, Henning

PD October 1993. TI Fiscal Policy and the Mehra-Prescott Puzzle: On the Welfare Implications of Budget Deficits when Real Interest Rates are Low. AA University of California, Santa Barbara. SR University of California at Santa Barbara Department of Economics Working Paper: 8-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. PG 17. PR no charge. JE H63, E62. KW Government Debt. Safe Assets.

AB Historically, average real returns on U.S. government debt have been far below the rate of economic growth, allowing the U.S. government to roll-over its debt at a rather low cost. At the same time, the rate of return on capital has generally been above the growth rate, suggesting that the U.S. economy is dynamically efficient. The paper shows that the welfare implications of budget deficits in this scenario depend critically on why interest rates have been so low. If the government can offer low returns on its debt because of some unique ability to create safe claims, persistent primary budget deficits may be unproblematic. But if low interest rates are due to high risk aversion, policies that exploit the low cost of government debt is safe for the debt holders, but it is very risky for the taxpayers who are taking a short position in the safe security.

### Bond, Eric W.

PD March 1993. TI Trading Blocs and the Sustainability of Inter-Regional Cooperation. AU Bond, Eric W.; Syropoulos, Constantinos. AA Bond: Pennsylvania State University. Syropoulos: not available. SR University of Birmingham Department of Economics Discussion Paper: 93-17; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 23. PR 2 pounds. JE F15, F13. KW Trade Blocs. Free Trade. Tariff War.

AB This paper examines how the presence of regional trading blocs affects the sustainability of a world equilibrium with free trade. We assume that members of trading blocs set tariffs on intra-bloc trade in a repeated tariff-setting game, and examine how the size of trading blocs affects the ability of blocs to support free trade using trigger strategies. We show that when the world is divided into  $N$  blocs of equal size, two conflicting effects of bloc size are present. The incentives to deviate from free trade are greater when blocs are large, but the welfare level in the resulting tariff war that follows a deviation is lower. Simulation results establish that the former effect dominates, indicating that it becomes more difficult to sustain free trade as the size of trading blocs increases. It is also shown that in a two bloc world, cooperation is more difficult the greater the difference in bloc size. Thus, the presence of large blocs makes inter-bloc cooperation more difficult.

PD May 1993. TI Optimality and Stability of Regional Trading Blocs. AU Bond, Eric W.; Syropoulos, Constantinos. AA Bond: Pennsylvania State University. Syropoulos: not available. SR University of Birmingham Department of Economics Discussion Paper: 93-11; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 25.

PR 2 pounds. JE F13, F15. KW Trade Blocs. Free Trade.

AB The recent strengthening of trading blocs in Europe and North America, along with the difficulties encountered in GATT negotiations, has suggested that negotiations are increasingly evolving toward regional arrangements in which groups of countries combine to allow free trade among themselves while continuing to impose tariffs on trade with the rest of the world. This has stimulated much discussion about the desirability of such regional trading arrangements from a world welfare point of view. Krugman (1991) has made an important contribution to this discussion by presenting a formal model of regional trading arrangements. He shows that an increase in the size of trading blocs leads blocs to impose higher tariffs on external trade against the rest of the world. We introduce an endowment model which allows us to examine how robust Krugman's conclusions regarding the effects of changes in absolute bloc size are to variations in the degree of comparative advantage and the pattern of trade. We also examine the incentives for blocs to change their relative size.

#### Bordo, Michael D.

PD August 1993. TI Labor Productivity during the Great Depression. AU Bordo, Michael D.; Evans, Charles L. AA Bordo: Rutgers University and National Bureau of Economics. Evans: Federal Reserve Bank of Chicago. SR National Bureau of Economic Research Working Paper: 4415; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 9. PR \$5.00. JE E30, E31, E23. KW Labor Productivity. Business Cycle Theory.

AB In a recent paper, Bernanke, and Parkinson (1991) studied interwar U.S. manufacturing data with the objective of assessing competing theories of the business cycle. An important finding was that short-run increasing returns to labor (SRIRL), or procyclical labor productivity, was at least as strong during the Great Depression as in the postwar period. The authors conclude this information casts further doubt on the real business cycle explanation of economic fluctuations. The purpose of this note is to point out that, within the data set analyzed by Bernanke and Parkinson (20% of the manufacturing sector), labor productivity during the Great Depression (1928:III to 1933:I) was procyclical in some industries and countercyclical in others. Furthermore, our measure of labor productivity for the entire manufacturing sector during this period was countercyclical. We conclude that the evidence is not favorable toward the hypothesis that large, negative aggregate demand shocks pushed the 1929-33 economy down a static, neoclassical production function. Another possibility is that firms which typically hoarded labor during recession chose not to do so during the 1929-33 period.

PD October 1993. TI Could Stable Money Have Averted the Great Contraction? AU Bordo, Michael D.; Choudhri, Ehsan U.; Schwartz, Anna J. AA Bordo: Rutgers University and National Bureau of Economic Research. Choudhri: Carleton University. Schwartz: National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4481; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 20. PR \$5.00. JE E32, E52, E58, E65. KW Money Supply. Great Depression. Money Growth.

AB We test the hypothesis that the Great Contraction would have been attenuated had the Fed not allowed the money stock

to decline. We do so by simulating a model that estimates separate relations for output and the price level and assumes that output and price dynamics are not especially sensitive to policy changes. The simulations include a strong and a weak form of Friedman's constant money growth rule. The results support the hypothesis that the Great Contraction would have been mitigated and shortened had the Fed followed a constant money growth rule.

TI A Small Open Economy in Depression: Lessons from Canada in the 1930's. AU Betts, Caroline M.; Bordo, Michael D.; Redish, Angela.

#### Borenstein, Severin

PD October 1993. TI Dynamic Pricing in Retail Gasoline Markets. AU Borenstein, Severin; Shepard, Andrea. AA Borenstein: University of California Energy Institute and National Bureau of Economic Research. Shepard: Stanford University. SR National Bureau of Economic Research Working Paper: 4489; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 37. PR \$5.00. JE D21, D40. KW Pricing. Gasoline. Collusion.

AB This paper tests for price patterns in retail gasoline markets consistent with those predicted by models of implicit collusion among firms. Recent supergame models show that the highest supportable collusive price is a function of today's profit relative to expected future profit: collusive prices are higher when predictable changes in demand or cost lead firms to expect that collusive profits are increasing rather than declining. *Ceteris paribus*, collusive profits will be expected to increase when demand is expected to increase and/or costs are expected to decline. Using panel data on sales volume, and retail and wholesale prices in 59 cities over 72 months, we find results consistent with these predictions. Controlling for current demand and input price, the elasticity of current retail margins with respect to expected next-month demand is about 0.37. The elasticity of current margins with respect to next month wholesale price price is about -0.37. The results are inconsistent with inventory effects.

#### Borsch-Supan, Axel

PD November 1993. TI Aging in Germany and the United States: International Comparisons. AA University of Mannheim, GERMANY. SR National Bureau of Economic Research Working Paper: 4530; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 51. PR \$5.00. JE J14, J18, I38. KW Aging. Retirement.

AB This paper reports on a set of international comparisons of how the German and the U.S. economies are affected by population aging. The paper's main focus is on the influence of institutional arrangements such as government regulations and subsidies on retirement, saving and housing choices in the two countries. Germany faces a particularly pronounced aging process. Its dependency ratio is already now as large as it will be in the year 2015 in the U.S., and it is predicted to exceed 43 percent at its peak in 2030. In this respect, changes that are occurring in Germany now may be regarded as indicative of changes to come in the United States. Retirement, savings and housing behavior differ quite markedly between Germany and the United States, and I will show that most of these differences are consistent with the incentives applicable to each country.

**Bound, John**

TI Did Criminal Activity Increase During the 1980's? Comparisons Across Data Sources. AU Bogess, Scott; Bound, John.

**Brenton, Paul A.**

PD November 1993. TI Negativity in an Almost Ideal Import Demand System. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-13; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 17. PR 2 pounds. JE C31, D12, F14. KW Demand Systems. Bilateral Trade Flows. Negativity.

AB Estimates of demand systems consistent with the underlying theory of a utility maximizing consumer are necessary if accurate welfare predictions are to be made. In this paper we concentrate upon the negativity constraint and assess its validity using the Almost Ideal Demand System subject to adding-up, homogeneity and symmetry applied to detailed trade and production data in the context of an import allocation model. Given the overwhelming rejection of negativity we consider a number of increasingly restrictive conditions which can be applied to the price parameters to try and achieve negativity over the sample data. In general, it is found that very tight constraints on substitution effects have to be imposed which remove the flexible nature of the model.

PD November 1993. TI The Harmonisation of EC Trade and Industrial Policy. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-16; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 19. PR 2 pounds. JE F15, F42, L52. KW International Policy Coordination. Economic Integration. AB In the light of the creation of the Single European Market and the moves toward Economic and Monetary Union this paper considers the case for EC wide uniformity of trade and industrial policies and seeks to highlight the effects of policy harmonization in these areas. Low estimated price elasticities of demand suggest that the effects of changes in policy will be greatest in those sectors where quantity constraints have been used. Harmonization of policy will then lead primarily to changes in prices and rents rather than adjustments in quantities.

**Brock, Philip L.**

PD October 1993. TI The Dependent Economy Model with Both Traded and Nontraded Capital Goods. AU Brock, Philip L.; Turnovsky, Stephen J. AA Brock: University of Washington. Turnovsky: University of Washington and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4500; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 25. PR \$5.00. JE E22, F32. KW Dependent Economy. Investment. Capital Goods.

AB This paper resolves a long-standing obstacle in the development and use of the dependent economy model with investment. This obstacle derives from the fact that models of the dependent economy with investment have been criticized for arbitrarily assuming that capital is either tradable or nontradable, and for choosing either the traded or nontraded sector to be capital intensive. The model incorporates both types of capital and shows that it is the relative sectoral intensity of nontraded capital that matters for the dynamic

adjustment of the relative price of nontradables. When the traded sector is relatively intensive in nontraded capital, the saddlepath is flat (at the long-run value of the relative price of nontradeables). When the nontraded sector is relatively intensive in nontraded capital, the saddlepath is negatively sloped. The relative sectoral intensity of traded capital primarily affects the adjustment of the current account. In particular, we consider the role of the complementarity or substitutability of traded and nontraded capital in the production structure on the behavior of the current account. The dynamic behavior of the model is illustrated by considering a permanent increase in foreign transfers.

**Broome, John**

PD September 1993. TI Rationing Health Care: Ethical Issues. AA University of Bristol. SR University of Bristol Economics Working Paper: 93/359; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 8. PR no charge. JE I18, D63, D61. KW Fairness. Rationing. Organ Donation.

AB Because there are not enough medical resources to cure everyone of everything, they must be rationed. This paper considers what are the right criteria for rationing medical resources. A natural thought is that we should use our resources in whatever way will do the most good. But this paper argues that the aim of doing the most good may conflict with the requirements of fairness. Sometimes we should distribute resources in a way that does not produce the maximum good in aggregate, but is fair.

PD September 1993. TI The Welfare Economics of Population. AA Bristol University. SR University of Bristol Economics Working Paper: 93/360; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 19. PR no charge. JE D63. KW Average Utilitarianism. Ethical Relativity.

AB Both argument and intuition support the idea that there is no value in adding people to the population if it brings no benefits to people already living. Adding people is morally neutral in itself. This paper explains how difficult it is to incorporate that idea in a coherent theory of the value of population. It considers three theories of population within welfare economics - average utilitarianism, critical-level utilitarianism and relativistic utilitarianism - and argues that none of them respond adequately to the idea that adding population is neutral.

PD September 1993. TI Fairness Versus Doing the Most Good. AA Bristol University. SR University of Bristol Economics Working Paper: 93/361; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 9. PR no charge. JE I11, D63. KW Medical Resources. Health Care. Rationing.

AB When medical resources have to be rationed, the aim of fairness sometimes conflicts with the aim of doing the most good. This paper provides a theoretical analysis of the conflict.

**Brown, William**

PD November 1992. TI Incomes Policy in Britain: Lessons from Experience. AA University of Cambridge. SR University of Cambridge Department of Applied

Economics Working Paper: 9309; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 13. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE J50, J58. KW Pay Determination. Collective Bargaining.

**AB** Britain's departure from the Exchange Rate Mechanism has forced the issue of incomes policy back onto the economic agenda. The paper addresses the question of the form and feasibility of incomes policy in the 1990's. It starts with a summary of post-war British experience with incomes policies, tracing the development of their institutional foundations. It then analyzes how the context of British pay determination has altered since formal policies ended in 1979, with major changes in the structure and conduct of bargaining. This permits an assessment of the limited policy options that are now available. It concludes that there is little scope for the government to be directly involved in a private sector incomes policy.

#### Bruno, Michael

PD August 1993. TI Inflation and Growth in an Integrated Approach. AA Hebrew University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4422; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 42. PR \$5.00. JE E30, E31, O40. KW Macropolicy. Inflation. Growth.

**AB** Macroeconomic factors in general, and the macropolicy response to common external shocks (such as oil prices and real interest rates) in particular, have in recent decades play a dominant role in countries' protracted growth crises as well as in growth renewal and its long-run sustainability. The paper attempts to construct and apply a simple framework for the joint empirical analysis of growth and inflation, starting from a rudimentary short-term AS and AD framework that is "averaged" into the medium and long run. For the industrial countries through the 1970's and 1980's such analysis highlights the existence of a marked 20 year inflation and growth "loop" extending beyond the conventional business cycles, with well identifiable phases of crisis entry disinflation and partial growth recovery. The interaction of macropolicy response to shocks with structural (mainly labor market) features of economies account for differences across countries both in the depth of the deterioration phase as well as in the gradual recovery, for which a panel regression provides some of the links between inflation, economic activity, profits and investment renewal. The second part of the paper applies similar tools and uncovers analogous, though much more dramatic, 15-20 year loops, in the crisis and recovery of a group of countries in Latin America (as well as Israel).

#### Bryan, Michael F.

PD October 1993. TI The Consumer Price Index as a Measure of Inflation. AU Bryan, Michael F.; Cecchetti, Stephen G. AA Bryan: Federal Reserve Bank of Cleveland. Cecchetti: Ohio State University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4505; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 21. PR \$5.00. JE E30, E31. KW Price Indices. Inflation.

**AB** An inflation approaches zero, it becomes increasingly important to examine the price indices on which monetary

policy is based. The most popularly used aggregate price statistic in the U.S. in the Consumer Price Index (CPI), a statistic that appears to be a focal point in monetary policy deliberations. A problem associated with using the CPI, a fixed weight index of the cost-of-living, is that there are likely to be biases in the index as a measure of inflation. In this paper we use a simple statistical framework to compute a price index that is immune to one of the potentially important biases inherent in the CPI as a measure of inflation weighting bias. Utilizing a dynamic factor model we are able to compute the common inflation element in a broad cross-section of consumer price changes. Our conclusion is that, although there was a large positive weighting bias during the fifteen years beginning in 1967, since 1981 the weighting bias in the CPI as a measure of inflation has been insignificant.

#### Bryson, Jay H.

PD September 1993. TI Macroeconomic Stabilization Through Monetary and Fiscal Policy Coordination: Implications for European Monetary Union. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 453; Division of International Finance, Board of Governors of the Federal Reserve System, Washington DC 20551. PG 18. PR no charge. JE F42, F36. KW Policy Coordination. Monetary Union. Macroeconomic Stabilization.

**AB** In a two-country model, we consider the implications of monetary and fiscal policy coordination for macroeconomic stabilization. We show that the optimal regime is one of monetary and fiscal policy coordination under flexible exchange rates. In the context of the European Community, this suggests that the desire to fix exchange rates may not be costless. In addition we show that, under an asymmetric demand shock, fiscal coordination requires a relatively high degree of flexibility in fiscal policy. This suggests that limits on the flexibility of fiscal policies, as suggested in the Delors Report, may hinder macroeconomic stabilization.

#### Bryson, John

TI Small Firm Creation and Growth, Regional Development and the North-South Divide. AU Keeble, David; Bryson, John.

#### Bull, Nicholas

PD July 1993. TI When All the Optimal Dynamic Taxes Are Zero. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 137; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 31. PR no charge. JE H21, D60, D58, C68. KW Optimal Taxation. Consumption Tax. Human Capital.

**AB** Consumption taxes have long been thought desirable; recent analysis by Chamley (1986) shows the steady-state optimality of depending solely on consumption taxes and of setting capital taxes to zero. I show that all the taxes - consumption, capital and wage - should be zero along any balanced growth path; to finance government spending the government uses the return on assets accumulated via surpluses along the transition path. The zero-tax property hinges on extending Chamley's analysis to consider the human capital choice. Because all taxes on the balanced growth path are zero.

proposals to reduce taxes on capital along or to substitute consumption taxes for income taxes should be viewed with some skepticism. But the optimal tax policy has aspects which may seem unrealistic. Thus, it seems likely to be productive to study alternative specifications of the model that capture key features of the real economic that have so far been left out.

PD July 1993. TI Technical Appendix to When All the Optimal Dynamic Taxes are Zero. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 138; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 43. PR no charge. JE C63, C68, D58, H21. KW Computational Techniques. Linearization. Optimal Taxation.

AB This technical appendix to "When All the Optimal Dynamics Taxes Are Zero" provides a detailed discussion of how to compute solutions to the non-linear system of equations characterizing an optimal tax equilibrium. It discusses a number of techniques for improving the likelihood that standard non-linear equation solvers will converge. It also discusses linearization techniques that are often used to simplify computation of equilibrium and shows that in this environment when these techniques are used the convergence is oscillatory.

PD September 1993. TI Who Pays Broad-Based Energy Taxes? Computing Lifetime and Regional Incidence. AU Bull, Nicholas; Hassett, Kevin A.; Metcalf, Gilbert E. AA Bull and Hassett: Board of Governors of the Federal Reserve System. Metcalf: Princeton University. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 142; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 23. PR no charge. JE E62, H22, Q48, R22. KW Energy Tax. Lifetime Incidence.

AB This paper measures the incidence of energy taxes using a lifetime income incidence framework to study both a BTU tax and a carbon tax. It takes into account two key facts. First, because energy taxes have different incidence effects across the life cycle, it is important to measure the burden of taxes in terms of lifetime incidence, not just their burden in a given year. To take account of lifetime incidence, we introduce an estimation methodology for life-correction as well as showing current consumption measures. Second, energy taxes have a total effect that combines both direct and indirect effects: in addition to directly increasing the price of energy goods, energy taxes also indirectly increase the price of all other goods in proportion to the energy used to produce them. We provide incidence estimates by income group and by geographical region.

#### Burgess, Simon M.

PD October 1993. TI Asymmetric and Time-Varying Error-Correction: An Application to Labour Demand in the U.K. AU Burgess, Simon M.; Escribano, Alvaro; Pfann, Gerard A. AA Burgess: University of Bristol. Escribano: Universidad Carlos III de Madrid. Pfann: University of Limburg/Maastricht. SR University of Bristol Economics Working Paper: 93/363; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 12. PR no charge. JE J23,

C22. KW Nonlinear Dynamics. Labor Demand.

AB In this paper we compare the asymmetric and time-varying error-correction models that have recently been proposed, and apply these to the case of UK aggregate labor demand. The aim of the paper is to investigate the possible co-existence of time-varying adjustment on the one hand, and constant asymmetric error-correction on the other hand. We find that without allowing for time-varying adjustment variables, the asymmetric error-correction models of Granger and Lee (1989) and Escribano (1986) work well. But once the time-varying adjustment variables are included, the evidence for time-invariant asymmetric adjustment is marginal.

#### Burridge, Peter

PD November 1991. TI A Very Simple, Positive Semi-Definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-24; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 4. PR 2 pounds. JE C13, C32. KW Covariance Matrix. Consistency.

AB The construction of estimated long-run covariance matrices via weighted sums of sample autocovariances is shown to be unnecessarily complicated. An extremely natural and simple alternative is offered.

TI A Simple Non-Parametric Test for a Unit Root. AU Boero, Gianna; Burridge, Peter.

#### C'Huiller, Jacques

PD April 1993. TI Le Franc Suisse Sauve des Eaux Monetaires. AA Universite de Geneva. SR Universite de Lausanne. Cahiers de Recherches economiques: 9303; Departement d'econometrie et d'economie politique, Univerite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne, SWITZERLAND. PG 11. PR no charge. JE E58. KW Swiss Franc. Inflation.

AB No abstract is available. This paper is written in French.

#### Caballero, Ricardo J.

TI Cross Sectional Efficiency and Labor Hoarding in a Matching Model of Unemployment. AU Bertola, Giuseppe; Caballero, Ricardo J.

#### Caplin, Andrew

PD November 1993. TI Collateral Damage: How Refinancing Constraints Exacerbate Regional Recessions. AU Caplin, Andrew; Freeman, Charles; Tracy, Joseph. AA Caplin: Columbia University and National Bureau of Economic Research. Freeman: Chemical Bank. Tracy: Columbia University. SR National Bureau of Economic Research Working Paper: 4531; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 20. PR \$5.00. JE R20, H21, R31. KW Mortgage Market. Refinancing. Collateral Constraints.

AB In the current structure of the U.S. residential mortgage market, a fall in property values may make it very difficult for homeowners to refinance their mortgages to take advantage of falling interest rates. In this paper, we explain the institutional background for this effect and quantify its importance. We confirm that this form of collateral constraint has greatly reduced recent refinancing in states with depressed property



markets. We also point in these already recession-hit states. Finally, we show that relatively minor institutional changes could have neutralized the damaging effects of the collateral constraints, and we discuss why the institutions have their current structure.

#### Card, David

PD July 1993. TI Using Geographic Variation in College Proximity to Estimate the Return to Schooling. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 317; Department of Economics, Princeton University, Princeton, NJ 08544-2098. PG 20. PR \$1.50. JE I20, I30. KW Return to Education. College Attendance. Family Background.

AB Although schooling and earnings are highly correlated, social scientists have argued for decades over the causal effect of education. A convincing analysis of the causal link between education and earnings requires an exogenous source of variation in education outcomes. This paper explores the use of college proximity as an exogenous determinant of schooling. An examination of the NLS Young Men Cohort reveals that men who grew up in local labor markets with a nearby college have significantly higher education and earnings gains are concentrated among men with poorly-educated parents--men who would otherwise stop schooling at relatively low levels. When college proximity is taken as an exogenous determinant of schooling the implied instrumental variables estimates of the return to schooling are 25-60% higher than conventional ordinary least squares estimates. Since the effect of a nearby college on schooling attainment varies by family background it is possible to test whether college proximity is a legitimately exogenous determinant of schooling. The results affirm that marginal returns to education among children of less-educated parents are as high and perhaps much higher than the rates of return estimated by conventional methods.

PD October 1993. TI Using Geographic Variation in College Proximity to Estimate the Return to Schooling. AA Princeton University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4483; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 26. PR \$5.00. JE J24, C51, C52. KW Earnings. Education.

AB A convincing analysis of the causal link between schooling and earnings requires an exogenous source of variation in education outcomes. This paper explores the use of college proximity as an exogenous determinant of schooling. Analysis of the NLS Young Men Cohort reveals that men who grew up in local labor markets with a nearby college have significantly higher education and earnings than other men. The education and earnings gains are concentrated among men with poorly-educated parents - men who would otherwise stop schooling at relatively low levels. Since the effect of a nearby college on schooling attainment varies by family background it is possible to test whether college proximity is a legitimately exogenous determinant of schooling. The results affirm that marginal returns to education among children of less-educated parents are as high and perhaps much higher than the rates of return estimated by conventional methods.

PD October 1993. TI Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania. AU Card, David; Krueger, Alan B. AA Card and Krueger. Princeton University and National

Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4509; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 35. PR \$5.00. JE J31, J38, J23. KW Minimum Wage. Employment.

AB On April 1, 1992 New Jersey's minimum wage increased from \$4.25 to \$5.05 per hour. To evaluate the impact of the law we surveyed 410 fast food restaurants in New Jersey and Pennsylvania before and after the rise in minimum. Comparisons of the changes in wages, employment, and prices at stores in New Jersey relative to stores in Pennsylvania (where the minimum wage remained fixed at \$4.25 per hour) yield simple estimates of the effect of the higher minimum wage. Our empirical findings challenge the prediction that a rise in the minimum reduces employment. Relative to stores in Pennsylvania, fast food restaurants in New Jersey increase employment by 13 percent. We also compare employment growth at stores in New Jersey that were initially paying high wages (and were unaffected by the new law) to employment changes at lower wage stores. Stores that were unaffected by the minimum wage had the same employment growth as stores in Pennsylvania, while stores that had to increase their wages increased their employment.

PD November 1993. TI An Evaluation of Recent Evidence of the Employment Effects of Minimum and Subminimum Wages. AU Card, David; Katz, Lawrence F.; Krueger, Alan B. AA Card: Princeton University. Krueger. U.S. Department of Labor and National Bureau of Economic Research. Krueger. Princeton University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4528; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 20. PR \$5.00. JE I20, J38. KW Minimum Wage. School Enrollment.

AB We re-examine recent cross-state evidence on the employment effect of the minimum wage. A re-evaluation of the data used in Neumark and Wachter's (1992) study of the minimum wage provides no support for their conclusion that the minimum wage has an adverse effect on teenage employment. Neumark and Wachter's findings are shown to be due to an inadvertent mistake in the definition of their school enrollment variable. In addition, Neumark and Wachter's coverage-weighted relative minimum wage index is shown to be negatively correlated with average teenage wages. We also re-analyze the experiences of individual states following the April 1990 increase in the Federal minimum wage, allowing for a full year lag in the effect of the law and controlling for changes in (properly measured) enrollment rates. These changes actually strengthen Card's (1992a) conclusion that the 1990 increase in the Federal minimum had no adverse employment effect. Lastly, we find that subminimum wages are rarely used, casting doubt on the claim that subminimum wage provisions temper any employment losses attributable to the minimum wage.

#### Carroll, Christopher D.

PD August 1993. TI Saving and Growth: A Reinterpretation. AU Carroll, Christopher D.; Weil, David N. AA Carroll: Board of Governors of the Federal Reserve System. Weil: Brown University. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 140; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal

Reserve Board, Washington, D.C. 20551. PG 48. PR no charge. JE D92, E21, F43, O57. KW Permanent Income Model. Habit Formation. Economic Growth.

AB We examine the relationship between income growth and saving using both cross-country and household data. At the aggregate level, we find that growth Granger causes saving, but that saving does not Granger cause growth. Using household data, we find that households with predictably higher income growth save more than households with predictably low growth. We argue that standard Permanent Income models of consumption cannot explain these findings, but that standard Permanent Income models of consumption cannot explain these findings, but that a models of consumption with habit formation may. The positive effect of growth on saving implies that previous estimates of the effect of saving on growth may be overstated.

PD September 1993. TI Saving and Growth: A Reinterpretation. AU Carroll, Christopher D.; Weil, David N. AA Carroll: Federal Reserve Board. Weil: Brown University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4470; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 63. PR \$5.00. JE O41, E21, D91. KW Permanent Income Hypothesis. Habit Formation.

AB We examine the relationship between income growth and saving using both cross-country and household data. At the aggregate level, we find that growth Granger causes saving, but that saving does not Granger cause growth. Using household data, we find that households with predictably higher income growth save more than households with predictably low growth. We argue that standard Permanent Income models of consumption cannot explain these findings, but that a model of consumption with habit formation may. The positive effect of growth on saving implies that previous estimates of the effect of saving on growth may be overstated.

#### Cecchetti, Stephen G.

TI The Consumer Price Index as a Measure of Inflation. AU Bryan, Michael F.; Cecchetti, Stephen G.

#### Chaikind, Stephen

TI The Effect of Low Birthweight on the Health, Behavior, and School Performance of School-Aged Children. AU Corman, Hope; Chaikind, Stephen.

#### Champ, Bruce A.

PD July 1993. TI Interest Rates Under the U.S. National Banking System. AU Champ, Bruce A.; Wallace, Neil; Weber, Warren E. AA Champ: University of Western Ontario. Wallace and Weber: Federal Reserve Bank of Minneapolis and University of Minnesota. SR Federal Reserve Bank of Minneapolis Staff Report: 161; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 17. PR no charge. JE N21. KW National Banking System. Interest Rates.

AB According to previous studies, the demand-liability feature of national bank notes did not present a problem for note-issuing banks because the nonbank public treated notes and other currency as perfect substitutes. However, that view, when combined with nonbindingness of the collateral restriction against note issue, itself an implication of the fact

that not all eligible collateral was used on collateral, implies that the safe short-term interest rate is pegged at the tax rate on note circulation. Since evidence on short-term interest rates is inconsistent with such a peg, that view must be rejected.

#### Chari, V. V.

PD November 1991. TI Optimal Fiscal and Monetary Policy: Some Recent Results. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J. AA Chari and Christiano: Federal Reserve Bank of Minneapolis. Kehoe: Federal Reserve Bank of Minneapolis and University of Minnesota. SR Federal Reserve Bank of Minneapolis Staff Report: 147; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 25. PR no charge. JE E32, E52, E62, H21. KW Quantitative Policy. Friedman Rule, Business Cycle.

AB This paper studies the quantitative properties of fiscal and monetary policy in business cycle models. In terms of fiscal policy, optimal labor tax rates are virtually constant and optimal capital income tax rates are close to zero on average. In terms of monetary policy, the Friedman rule is optimal-nominal interest rates are zero-and optimal monetary policy is activist in the sense that it responds to shocks to the economy.

PD July 1993. TI A Contribution to the Theory of Pork Barrel Spending. AU Chari, V. V.; Cole, Harold. AA Chari: Northwestern University and Federal Reserve Bank of Minneapolis. Cole: Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report: 156; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 34. PR no charge. JE D72. KW Vote Trading. Free Rider.

AB In this paper we present a formal model of vote trading within a legislature. The model captures the conventional wisdom that if projects with concentrated benefits are financed by universal taxation, majority rule leads to excessive spending. This occurs because the proponent of a particular bill only needs to acquire the votes of half the legislature, and hence will only internalize the costs to half the representatives. We show that Pareto superior allocations are difficult to sustain because of a free rider problem amongst the representatives. Specifically, while alternative arrangements, such as unanimity, will eliminate excessive spending on concentrated benefit projects, they will also lead to underfunding of diffuse benefit projects.

PD July 1993. TI Optimality of the Friedman Rule in Economies With Distorting Taxes. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J. AA Chari and Christiano: Northwestern University and Federal Reserve Bank of Minneapolis. Kehoe: University of Pennsylvania and Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report: 158; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 26. PR no charge. JE E52, E62, H21. KW Optimal Monetary Policy. Optimal Taxation. Monetary Policy.

AB We find conditions for the Friedman rule to be optimal in three standard models of money. These conditions are homotheticity and separability assumptions on preferences similar to those in the public finance literature on optimal uniform commodity taxation. We show that there is no connection between our results and the result in the standard

public finance literature that intermediate goods should not be taxed.

PD July 1993. TI Optimal Fiscal Policy in a Business Cycle Model. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J. AA Chari and Christiano: Northwestern University and Federal Reserve Bank of Minneapolis. Kehoe: University of Pennsylvania and Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report: 160; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 33. PR no charge. JE E32, E62, H21. KW Quantitative Policy. Capital Tax. Labor Taxes.

AB This paper develops the quantitative implications of optimal fiscal policy in a business cycle model. In a stationary equilibrium the ex ante tax rate on capital income is approximately zero. There is an equivalence class of ex post capital income tax rates and bond policies that support a given allocation. Within this class the optimal ex post capital tax rates can range from being close to i.i.d. to being close to a random walk. The tax rate on labor income fluctuates very little and inherits the persistence properties of the exogenous shocks and thus there is no presumption that optimal labor tax rates follow a random walk. The welfare gains from smoothing labor tax rates and making ex ante capital income tax rates zero are small and most of the welfare gains come from an initial period of high taxation on capital income.

PD August 1993. TI Why are Representative Democracies Fiscally Irresponsible? AU Chari, V. V.; Cole, Harold. AA Chari: Northwestern University and Federal Reserve Bank of Minneapolis. Cole: Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report: 163; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 11. PR no charge. JE D72. KW Free Rider.

AB We develop a model of a representative democracy in which a legislature makes collective decisions about local public goods expenditures and how they are financed. In our model of the political process legislators defer to spending requests of individual representatives, particularly committee chairmen, who tend to promote spending requests that benefit their own districts. Because legislators do not fully internalize the tax consequences of their individual spending proposals, there is a free rider problem, and as a result spending is excessively high. This leads to prefer a higher level of debt to restrain excessive future spending.

PD October 1993. TI Optimal Fiscal Policy in A Business Cycle Model. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J. AA Chari: Northwestern University and Federal Reserve Bank of Minneapolis. Kehoe: University of Pennsylvania and Federal Reserve Bank of Minneapolis. Christiano: Northwestern University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4490; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 31. PR \$5.00. JE E30, E62. KW Business Cycles. Fiscal Policy. Tax Rates.

AB This paper develops the quantitative implications of optimal fiscal policy in a business cycle model. In a stationary equilibrium the ex ante tax rate on capital income is approximately zero. There is an equivalence class of ex post capital income tax rates and bond policies that support a given allocation. Within this class the optimal ex post capital tax rates

can range from being close to i.i.d. to being close to a random walk. The tax rate on labor income fluctuates very little and inherits the persistence properties of the exogenous shocks and thus there is no presumption that optimal labor tax rates follow a random walk. The welfare gain from smoothing labor tax rates and making ex ante capital income tax rates are small and most of the welfare gains come from an initial period of high taxation on capital income.

#### Chichilnisky, Graciela

PD August 1993. TI Who Should Abate Carbon Emissions? An International Viewpoint. AU Chichilnisky, Graciela; Heal, Geoffrey. AA Chichilnisky: Columbia University. Heal: Columbia University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4425; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR \$5.00. JE H41, Q20, Q28, Q25. KW Carbon Emissions. Tradeable Permits. Atmosphere. Public Goods.

AB We review the optimal pattern of carbon emission abatements across countries in a simple multi-country world. We model explicitly the fact that the atmosphere is a public good. Within this framework we establish conditions for it to be necessary for optimality that the marginal cost of abatement be the same in all countries. These conditions are quite restrictive, and amount to either ignoring distributional issues between countries or operating within a framework within which lump-sum transfers can be made between countries. These results have implications for the use of tradeable emission permits, which as normally advocated will lead to the equalization of marginal abatement costs across countries. The observation that the atmosphere is a public good implies that we may need to look at a Lindahl equilibrium rather than a Walrasian equilibrium in tradeable permits.

TI Sustainable Growth and the Green Golden Rule. AU Beltratti, Andrea; Chichilnisky, Graciela; Heal, Geoffrey.

#### Chikte, Shirish D.

PD July 1993. TI To be the First or to be the Best: New Product Quality and Timing in R&D Competition. AU Chikte, Shirish D.; Deshmukh, Sudhaker D. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1056; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 19. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE C73, D83, L15, O31, O32. KW R&D Competition. Quality. Timing. Stopping. Game.

AB Better quality products usually command bigger market shares and higher profits for the firm. However, developing better products also requires higher R&D expenditures and longer development times, during which a competing firm must balance these two effects in determining their product quality and timing decisions. We model this R&D competition between two dissimilar firms as a stochastic stopping game and investigate the nature of its equilibrium. In equilibrium, each firm sets a reservation level of the product quality target and command a higher market share and profit. Competition to be the first induces each firm to introduce lower quality products earlier than it would as a monopolist. However, the net social

benefit is shown to be higher with competition than with just the weaker firm as a monopolist, although the stronger firm as a monopolist is shown to yield an even more desirable outcome, which in fact, turns out to be socially optimal. Finally, if the firms are identical, this socially optimal outcome is also attainable with competition, and in fact is attained at a pace faster than that with the strong monopolist or centrally controlled R&D.

### Chinn, Menzie David

PD October 1993. TI Financial Links Around the Pacific Rim: 1982-1992. AU Chinn, Menzie David; Frankel, Jeffrey A. AA Chinn: University of California, Santa Cruz. Frankel: University of California, Berkeley. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-023; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 15. PR no charge. JE F41, F36. KW Interest Rates. Financial Liberalization.

AB Interest rate links strengthened among some Pacific Rim countries over the period 1982-1992, even though substantial country barriers and currency barriers remain. The covered interest differential narrowed for Australia and New Zealand, as their programs of financial liberalization admitted them to the club whose members already included Hong Kong, Singapore, Japan, and Canada. The exchange risk premium also narrowed significantly for Australia during the period 1988-92 (for which survey data are available). Overall, world influences on local interest rates increased in Australia, Korea, Malaysia, and New Zealand. In the cases of Australia, New Zealand, and Canada, there appears to have been a shift of influence from Tokyo interest rates to New York interest rates. In the cases of Indonesia and (somewhat less significantly) Korea and Singapore, there are signs of influence shifting from New York to Tokyo.

### Choudhri, Ehsan U.

TI Could Stable Money Have Averted the Great Contraction? AU Bordo, Michael D.; Choudhri, Ehsan U.; Schwartz, Anna J.

### Christiano, Lawrence J.

TI Optimal Fiscal and Monetary Policy: Some Recent Results. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

TI Optimality of the Friedman Rule in Economies With Distorting Taxes. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

TI Optimal Fiscal Policy in a Business Cycle Model. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

TI Optimal Fiscal Policy in A Business Cycle Model. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

### Clare, Andrew D.

PD December 1993. TI An Analysis of Seasonality in the U.K. Equity Market. AU Clare, Andrew D.; Psaradakis, Zacharias; Thomas, Stephen H. AA Clare: University of Brunel. Psaradakis: University of Bristol. Thomas: University College of Wales. SR University of Bristol Economics Working Paper: 93/367; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol

BS8 1TN, ENGLAND. PG 17. PR no charge. JE C53, G10, G14. KW GARCH-M. Unit Roots. Market Efficiency.

AB The traditional view of empirical regularities in financial time series is that they are in direct conflict with the weak form version of the Efficient Market Hypothesis which states that the past history of security prices should not be useful for predicting future price changes. Our analysis reveals that returns on the FT-A All Share index exhibit significant seasonal variation which is best described by a deterministic seasonal model. The analysis is extended to the case of five size-sorted portfolios of UK stocks to determine whether seasonality is a phenomenon associated with stocks with low market capitalization. We also take account of risk by estimating a GARCH-M model of UK equity returns, to examine whether seasonality in returns is due to seasonal variation in risk, proxied by market volatility. Our results show that seasonal fluctuations in the UK equity market are robust to both the size hypothesis and to a GARCH-M specification for stock returns.

### Clarida, Richard H.

PD October 1993. TI International Capital Mobility, Public Investment and Economic Growth. AA Columbia University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4506; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 20. PR \$5.00. JE E22, F20, F21. KW International Capital. Capital Stock. Solow Residual.

AB This paper presents a neoclassical model of international capital flows, public investment, and economic growth. Because public capital is non-traded and is imperfectly substitutable for private capital, the open economy converges only gradually to the Solow steady-state notwithstanding the fact that international capital mobility is perfect. Along the convergence path, the economy initially runs a current account deficit that reflects a consumption boom and a surge in public spending. Over time, the rate of public investment declines as does the rate of growth in the standard measure of multifactor productivity in the private sector, the Solow residual. In the empirical section of the paper, we test the hypothesis that the log of the Solow residual and the log of the public capital stock in the US, France, Germany, and Britain are cointegrated using the multivariate maximum likelihood approach of Johansen (1991). We find that productivity and public capital are cointegrated in each of these four countries. The estimated relationship between productivity and public capital is quite similar across countries.

### Clark, Robert L.

TI Post-Retirement Increases in Pensions in the 1980's: Did Plan Finances Matter? AU Allen, Steven G.; Clark, Robert L.; McDermed, Ann A.

### Clarke, Rosemary

TI Controlling Greenhouse Gases: A Survey of Global Macroeconomic Studies. AU Boero, Gianna; Clarke, Rosemary; Winters, L. Alan.

PD 1992. TI The Welfare Effect of a Carbon Tax for China. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-25; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 21. PR 2 pounds. JE H21, Q25, Q48, Q30.

**KW** Energy Markets. Pollution Abatement. Energy Tax.

**AB** Distortions of energy markets, through subsidies and taxes, affect the cost of abating carbon dioxide emissions. This paper is an exercise in second-best. It examines the welfare effect of imposing a carbon tax in China, a country whose rapid growth and reliance on coal make it potentially one of the most important participants in any global agreement to reduce carbon dioxide emissions. In calculating welfare effects, account is taken of recent economic reforms which have resulted in a two part pricing system whereby state fuel prices differ from market prices.

**Cleveland, William P.**

**TI** Joint Seasonal Adjustment of Economic Time Series.

**AU** Bartelsman, Eric J.; Cleveland, William P.

**Clouse, James A.**

**PD** September 1993. **TI** Some Monetary Policy Implications of Safety and Soundness Reforms. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-31; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 37. **PR** no charge. **JE** E51, E52, E53. **KW** Bank Regulation. Monetary Policy.

**AB** This paper investigates the hypothesis that recent banking reforms have muted the traditional response of money growth to monetary policy stimulus. The model we develop to explore the relationship between "safety and soundness" reforms and the efficacy of monetary policy weaves together three strands of the existing literature. We embed a version of the standard reserve/cash management problem in a simple equilibrium growth model. Deposit variability together with reserve requirements and penalties imposed for reserve deficiencies give rise to a reserve management problem faced by banks. Bank optimizing behavior results in a precautionary demand for reserves as a means of avoiding penalties. The basic result of the paper is that increases in penalties for capital deficiencies can, indeed, hinder the growth of the aggregate money stock. Moreover, we find that these changes in regulatory policy can weaken the response of deposits to reductions in short-term interest rates and reserve requirements.

**Cockburn, Iain**

**TI** Scale, Scope and Spillovers: The Determinants of Research Productivity in the Pharmaceutical Industry.

**AU** Henderson, Rebecca; Cockburn, Iain.

**Cole, Harold**

**TI** A Contribution to the Theory of Pork Barrel Spending.

**AU** Chari, V. V.; Cole, Harold.

**TI** Why are Representative Democracies Fiscally Irresponsible? **AU** Chari, V. V.; Cole, Harold.

**Cole, Nancy**

**TI** Restrictions on Medicaid Funding of Abortion: Effects on Pregnancy Resolutions and Birthweight. **AU** Currie, Janet; Nixon, Lucia; Cole, Nancy.

**Cole, Rebel A.**

**PD** October 1993. **TI** Thrift Asset-Class Returns and the Efficient Diversification of Thrift Institution Portfolios.

**AU** Cole, Rebel A.; McKenzie, Joseph A. **AA** Cole: Board of Governors of the Federal Reserve System. McKenzie: Federal Housing Finance Board. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-34; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 18. **PR** no charge. **JE** C25, G21, G28. **KW** S&L. Moral Hazard.

**AB** We estimate quarterly return series from March 1984 through December 1989 for ten classes of thrift asset. We then use these return series to estimate mean-variance efficient frontiers for all thrifts, for thrifts that were well-capitalized two years earlier, and for thrifts that were insolvent two years earlier. Our results show that neither the asset restrictions existing before nor those in effect after passage of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 would have prevented thrifts from reaching most of the portfolios along the efficient frontier. The actual portfolio chosen by well-capitalized thrifts is close to the estimated efficient frontier, while the actual portfolio chosen by insolvent thrifts is located far from the frontier in the high-risk end of investment space. These findings, coupled with the high proportion of nontraditional assets in the actual portfolio chosen by insolvent thrifts, support the hypothesis that moral hazard induced thrifts to take on investments that were excessively risky from the deposit insurer's point of view.

**PD** October 1993. **TI** Asymmetric-Information and Principal-Agent Problems as Sources of Value in FSLIC-Assisted Acquisitions of Insolvent Thrifts. **AU** Cole, Rebel A.; Eisenbeis, Robert A.; McKenzie, Joseph A. **AA** Cole: Board of Governors of the Federal Reserve System. Eisenbeis: University of North Carolina, Chapel Hill. McKenzie: Federal Housing Finance Board. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-35; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 29. **PR** no charge. **JE** G21, G28, G34, C25. **KW** Mergers. S&L. Asymmetric Information.

**AB** This study uses a two-factor market-model to estimate excess returns around 43 announcements of FSLIC-assisted thrift mergers and 66 announcements of unassisted thrift mergers. These estimated excess returns are then used to test hypotheses about asymmetric-information and principal-agent problem in the thrift resolution process as sources of value in these mergers. The results show that acquirers in assisted transactions earned positive and statistically significant excess returns of approximately 2 percent, whereas acquirers in unassisted transactions earned excess returns that are not significantly different from zero; however, the excess returns in the assisted mergers are quantitatively small. The findings suggest that the FSLIC-assisted transactions were reasonably well-structured and that the assistance granted did not result in large wealth transfers from the FSLIC and taxpayers to acquirers of insolvent institutions.

**PD** November 1993. **TI** When Are Thrifts Closed? An Agency-Theoretic Model. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-37; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 29. **PR** no charge. **JE** G21, G28, G33, C25. **KW** S&L. Insolvency. Closure.

**AB** This study examines the determinants of both book-value insolvency and regulatory closure in the thrift industry. Agency

theory suggests that the determinants of insolvency and closure are a function of conflicts between shareholders and creditors, shareholders and managers, and regulators and taxpayers. Certain thrift attributes may have differing effects upon insolvency and closure because regulators' best interests may not be served by promptly closing insolvent institutions. In this study, both thrift insolvency and thrift closure are modeled as functions of two broad risk factors: operating risk and agency risk. Using a bivariate probit model to jointly examine determinants of insolvency and closure, the analysis reveals that measures of both operating risk and agency risk generally are statistically significant with the expected signs, providing evidence consistent with the existence both of moral hazard by thrift owners and of expense-preferent behavior by thrift managers.

#### Comanor, William S.

PD March 1993. TI *Rewriting History: The Early Sherman Act Monopolization Cases*. AU Comanor, William S.; Scherer, F. M. AA March 1993. SR John F. Kennedy School of Government Faculty Research Working Paper: R93-5; Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. PG 30. PR \$5.00. JE L44, L70, L71, L72. KW Antitrust. Standard Oil.

AB In a precedent-setting 1911 antitrust decision, the Standard Oil Company of New Jersey was broken into 34 pieces. In a 1920 decision that set further precedents, the U.S. Supreme Court concluded that the United States Steel Corporation was not guilty of monopolization. This paper asks the counter-factual questions, what if Standard Oil had not been fragmented? And what if the U.S. Steel had been broken up, as sought by the government? It traces the qualitative evolution of the Standard fragments following the 1911 divestiture decision and the corresponding history of a unified, industry-leading U.S. Steel. It then undertakes quantitative analyses of the survivors' market share trends and the comparative productivity growth, average plant sizes, price-cost margins, and net exports of the petroleum refining, blast furnace, and steel industries from 1899 through 1939. At first, the post-divestiture performance of the standard fragments did not change much relative to pre-divestiture patterns and the parallel behavior of iron and steel producers. Petroleum product exports were the main exception. Decentralization may also have permitted more rapid technological innovation. Competitive contact among the Standard survivors grew only slowly. However, by the 1930's, the Standard refining company fragments had interpenetrated each others' markets extensively, and competition intensified. The steep decline in Standard survivors' market shares, paralleling that of United States Steel in earlier decades, came to a halt. The end results appear to have been numerous petroleum refining companies "fit" to compete vigorously in world markets.

#### Cook, Timothy E.

TI *Character Issues and Performance: Discourse in the 1992 Presidential Campaign*. AU Crigler, Ann N.; Just, Marion R.; Cook, Timothy E.

#### Corman, Hope

PD July 1993. TI *The Effect of Low Birthweight on the Health, Behavior, and School Performance of School-Aged Children*. AU Corman, Hope; Chaikind, Stephen. AA Corman: National Bureau of Economic Research and

Rider College. Chaikind: National Bureau of Economic Research and Gallaudet University. SR National Bureau of Economic Research Working Paper: 4409; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE J13, I40, I20. KW Birthweight. Education. Children's Health.

AB This study uses the 1988 Child Health Supplement of the National Health Interview Survey to examine the performance of school-aged children who were of low birthweight. We examine a number of indicators of school performance, health, and behavior. We examine these effects separately for children ages 6 to 10 and for children ages 11 to 15. In addition, we examine two sets of the age cohorts: one where all children are included, and one which excludes children who are attending special education. The latter category is meant to examine children who have not been identified as having problems in school which require special services. We find that low birthweight children are more likely to perform poorly in school than their normal birthweight peers, and they are more likely to experience health problems, even into their adolescence. We do not find significantly more behavior problems for low birthweight children compared to their normal birthweight peers.

#### Cornell, Stephen

PD April 1993. TI *Culture as Explanation in Racial and Ethnic Inequality: American Indians, Reservation Poverty, and Collective Action*. AU Cornell, Stephen; Kalt, Joseph P. AA Cornell: University of California, San Diego. Kalt: Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-18; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 33. PR \$5.00. JE D70, Z10, O10. KW American Indians. Culture. Collective Action. Development.

AB Both sociology and economics have begun to pay increased attention to the role of culture in collective action. We consider this topic through an examination of recent efforts by American Indian tribes to promote economic development on Indian reservations. Some tribal efforts have been successful; others have not. Evidence suggests that a critical variable is the degree of match between the formal institutions by which tribes govern themselves and the informal conceptions of appropriate relationships and forms of behavior that are embedded in indigenous cultural repertoires. This match is made problematic by the fact that most contemporary systems of tribal governance were not designed by tribes themselves. Regardless of their origin, however, our research indicates that where the institutional match is high, economic development tends to be successful; where it is low, development falters. Culture thus serves as a foundation of successful collective action and, through it, of Indian progress against poverty.

PD July 1993. TI *Where Does Economic Development Really Come From? Constitutional Rule Among the Modern Sioux and Apache*. AU Cornell, Stephen; Kalt, Joseph P. AA Cornell: University of California, San Diego. Kalt: Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-30; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 43. PR \$5.00. JE A14, D70, H11. KW Self-Government. Constitutions. American Indian.

AB The institutions of self-government are classic

Samuelsonian public goods. They are collective consumption goods that provide the organizational and legal structures by which societies arrange and enforce the "rules of the game" that enable divisions of labor, exchange, and collective action. Contractarian and public choice traditions in political science and economics emphasize the central role of constitutions as the foundational institutions that produce public institutions of self-government. Yet, explanation of the origins and dynamic equilibrium properties of constitution inevitably confronts the explanation of the origins and dynamic equilibrium properties of constitution inevitably confronts the "Hobbesian conundrum": Democratic constitutions are, themselves, public goods for which no super-government stands ready to prevent free riding by self-interested usurpers; Constitutions are written on paper and might be expected to be subjects to perpetual coalition cycling and/or democratic takeover. Paper constitutions are a veil of civility covering up a perpetually Hobbesian struggle. How do societies really establish more or less effective and stable institutions of self-government? This conundrum is leading many analysts to explore pre-and extra-constitutional socio-cultural foundations of social organization. This study argues that shared cultural norms of political legitimacy among rational individuals provide such foundations. To test the framework, we examine modern constitutional rule among a set of small "nations": the modern Apache and the Sioux tribes on American Indian reservations. Both tribes operate under very similar constitutions that were effectively imposed upon them in the 1930's.

#### Cornelli, Francesca

TI Large Shareholders, Private Benefits of Control and Optimal Schemes for Privatization. AU Li, David D.; Cornelli, Francesca.

#### Cosh, A. D.

PD May 1993. TI Size, Financial Structure and Profitability: UK Companies in the 1980's. AU Cosh, A. D.; Hughes, Alan. AA University of Cambridge. SR University of Cambridge Small Business Research Centre Working Paper: 27; Department of Economics, University of Cambridge, Sidgwick Avenue, CB3 9DE Cambridge, UNITED KINGDOM. PG 51. PR \$10.00 (L5.00); checks payable to University of Cambridge. JE D21, G32, D23. KW Small Firms. Ownership. Profits. Financial Structure.

AB This paper uses samples of several thousand UK businesses to examine the relative ownership and financial structure, and performance of Small and Medium sized Enterprises (SME's) in the UK in the period 1977-91. The analysis shows that the financial structure of UK SME's compared to larger ones displays properties that are consistent with the view that they follow a particular "pecking order" of financial sources in funding their activities. Small firms are relatively more reliant on equity finance. Trade credit also plays a more important role on the liabilities side of their balance sheet, and trade debtors a more important role on the asset side. The financial structure of small firms in the UK may reflect the wishes of entrepreneurs as much as constraints placed on them by suppliers of finance. The theoretical literature and the survey and case study evidence reviewed suggest that a variety of market failures may nonetheless produce problems in terms of both credit rationing and excess demands for collateral in certain areas especially for newly established and innovative

firms.

PD May 1993. TI Acquisition Activity in the Small Business Sector. AU Cosh, A. D.; Hughes, Alan. AA University of Cambridge. SR University of Cambridge Small Business Research Centre Working Paper: 28; Department of Economics, University of Cambridge, Sidgwick Avenue, CB3 9DE Cambridge, UNITED KINGDOM. PG 21. PR \$10.00 (L5.00); checks payable to University of Cambridge. JE G34, G32, D21. KW Small Firms. Takeovers.

AB This paper presents the first systematic attempt to document the scale of acquisition activity in small and medium-sized enterprises (SME's), the characteristics of the businesses involved and the impact of acquisition upon their performance. It is based on the analysis of samples of several thousand businesses in the period 1977-91. The paper shows that although SME's had overall higher death rates than larger businesses they are less likely to be acquired. SME acquirers are faster growing but not more profitable than SME non-acquirers. SMEs are more likely to be acquired if they are relatively slow growing, less profitable and have less liquidity and higher short-term borrowing. Acquisition has adverse short-term profitability effects followed by recovery thereafter. The worst profit declines are experienced by those which were most profitable prior to acquisition, which suggests the presence of a strong regression to the mean effect.

#### Costa, Dora L.

PD November 1993. TI Health, Income, and Retirement: Evidence from Nineteenth Century America. AA Massachusetts Institute of Technology and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4537; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 40. PR \$5.00. JE I10, J14, N31. KW Pensions. Retirement.

AB I investigate the factors that fostered rising retirement rates prior to social security and private-sector pension by estimating the income effect of a large government transfer, the first major pension program in the United States, covering Union Army veteran of the American Civil War. The pension, because of the program's rules, had only an income effect and these rules create a natural experiment to identify the effects of pensions and health on labor supply. Pensions exerted a large impact on retirement rates. The elasticity of non-participation with respect to social security payments. Union Army pensions were a much larger fraction of retirement income than social security payments today and this accounts for some of the difference in estimated elasticities. My findings suggest that secular increase in income can explain a substantial part of the rise in retirement rates, although the elasticity of labor force non-participation with respect to transfer income may have fallen over time, perhaps because of the increasing attractiveness of leisure.

#### Crigler, Ann N.

PD September 1993. TI Character Issues and Performance: Discourse in the 1992 Presidential Campaign. AU Crigler, Ann N.; Just, Marion R.; Cook, Timothy E. AA Crigler and Just:Harvard University. Cook: Williams College. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-32; Harvard University, 79 John F. Kennedy Street, Cambridge MA

02348. PG 19. PR \$5.00. JE D70, D72. KW Citizens. Information. Voting. Media.

AB This paper reports findings from a multi-method study of citizens and their information environment, conducted from January to November, 1992. In-depth interviews with panels of voters in four communities in different regions of the country indicates that the evaluation of the performance of the incumbent president was central to the citizen's early campaign discourse. Content analysis of network news coverage of the campaign shows that the news media provided information about candidate character and issue positions in the primary and summer seasons, but concentrated heavily on issues during the fall campaign. Candidate advertising responded to citizens' concerns about the economy and addressed issues throughout the campaign. By the time the final set of interviews was conducted, however, voter discourse about candidates shifted from a consideration of issues and character to a focus on personal qualities. Public opinion data demonstrates that the more candidates discussed the economy, the more favorably voters assessed their personal qualities. The evidence suggests that voters keep a "running tab" on candidates which is reported as an assessment of personal qualities. Analysis of the 1992 campaign supports some optimism about the news media's capacity to provide citizens with information about candidates, about candidates' responsiveness to voters' policy concerns, and about citizens' ability to make electoral choices based on policy concerns.

#### Currie, Janet

PD August 1993. TI Restrictions on Medicaid Funding of Abortion: Effects on Pregnancy Resolutions and Birthweight. AU Currie, Janet; Nixon, Lucia; Cole, Nancy. AA Currie: University of California, Los Angeles. Nixon: Massachusetts Institute of Technology. Cole: ABT Associates. SR National Bureau of Economic Research Working Paper: 4432; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 18. PR \$5.00. JE I12, I18, J13. KW Abortion. Birthweight.

AB Previous research suggests that restricting the availability of abortion reduces average birth weight by increasing the number of unhealthy fetuses that are carried to term. In this paper we use data from the National Longitudinal Survey of Youth to ask whether restrictions on Medicaid funding of abortion have this effect. We attempt to account for the potential endogeneity of abortion laws by comparing the effects of liberal statutes to those of court injunctions ordering states to fund abortions. Our results suggest that restrictions do increase the probability that African-American and low-income women carry a pregnancy to term, but that they have no direct effect on birth weight. In contrast, community-level measures of the availability of abortion, contraception, and prenatal care do affect birth weight among African-Americans but not among whites.

#### Davis, Steven J.

PD October 1993. TI Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts. AU Davis, Steven J.; Haltiwanger, John; Schuh, Scott. AA Davis: University of Chicago and National Bureau of Economic Research. Haltiwanger: University of Maryland and National Bureau of Economic Research. Schuh: Federal Reserve Board. SR National Bureau of Economic Research Working Paper: 4492; National Bureau of Economic Research, 1050

Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE E24, J21. KW Job Creation. Job Destruction. Firm Size.

AB This paper investigates how job creation and destruction behavior varies by employer size in the U.S. manufacturing sector during the period 1972 to 1988. The paper also evaluate the empirical basis for conventional claims about the job-creating prowess of small businesses. The chief findings and conclusions fall into five categories: (1) Conventional wisdom about the job-creating prowess of small businesses rests on misleading interpretations of the data. (2) Many previous studies of the job creation prowess rely upon data that are not suitable for drawing inferences about the relationship between employer size and job creation. (3) Large plants and firms account for most newly-created and newly-destroyed manufacturing jobs. (4) Survival rates for new and existing manufacturing jobs increase sharply with employer size. (5) Smaller manufacturing firms and plants exhibit sharply higher gross rates of job creation but not higher net rates.

#### Deshmukh, Sudhaker D.

TI To be the First or to be the Best: New Product Quality and Timing in R&D Competition. AU Chikte, Shirish D.; Deshmukh, Sudhaker D.

#### Diamond, Peter

PD October 1993. TI Privatization of Social Security: Lessons from Chile. AA Massachusetts Institute of Technology and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4510; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE H55. KW Social Security. Privatization.

AB In Chile, all covered workers must place 10% of monthly earnings in a savings account with a highly regulated intermediary that manages a single fund and provides survivors and disability insurance. Workers pay a commission charge, in addition to the mandatory 10%, to finance this insurance and to cover the costs and profits of the intermediaries. On becoming eligible to receive benefits, a worker can choose between a sequence of phased withdrawals and a real annuity. In addition, there is a sizable guaranteed minimum pension. Unlike the purchased annuities, the minimum pension is not indexed, but adjusted by the government from time to time. The Chilean reform gets high marks for defending the system from political risk and for its effects on capital accumulation and on the functioning of the capital market. The Chilean reform gets low marks for the provision of insurance and for administrative cost. Perhaps the most surprising aspect of the Chilean reform is the high cost of running a privatized social security system, higher than the "inefficient" system that it replaced.

#### Dickens, William T.

TI Bilateral Search as an Explanation for Labor Market Segmentation and Other Anomalies. AU Lang, Kevin; Dickens, William T.

#### Dickinson, David G.

PD April 1992. TI An Error Correction Model for the Demand for International Reserves: The Cases of Brazil and Venezuela. AU Dickinson, David G.; Ford, J. L.; Huang, Guobo. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-



05; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 34. PR 2 pounds. JE F31, C22. KW International Reserves. Error Correction Model. Stability.

AB After investigation into the nature of the data, including seasonality, integration and cointegration, this paper constructs a congruent ECM model to study the dynamic adjustment process of, and the long-run demand for, international reserves in two debtor countries: Brazil and Venezuela. The collapse of the Bretton Woods system does not seem to have had obvious effects on these countries' reserve demand, while the debt crisis in 1982 caused only a temporary shock to the dynamic process. Reserve demand is found to respond significantly to its opportunity costs as well as to the scaling variable and a risk measure. The past disequilibrium is corrected at a high speed. Both the dynamic and the long-run equations capture the effects on reserve demand of the differences in oil resources and the scale of the foreign trade sectors between the two countries, as well as the effects of their similarities in development and reserve management strategies.

PD May 1993. TI Currency Convertibility, Policy Credibility and Capital Flight in Poland and the CSFR. AU Dickinson, David G.; Mullineux, Andrew W. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-04; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 22. PR 2 pounds. JE F31, F32, P52, P27. KW Economic Transition. Convertibility. Credibility.

AB This paper considers evidence concerning the extent of capital flight in two of the former centrally planned economies of Central and Eastern Europe, Poland and the CSFR, during the early stages of their transition to market structures. The relationship between policy credibility and capital flight is particularly emphasized and the implications of this relationship, for the choice of the degree of foreign exchange convertibility, is considered.

#### Dominguez, Kathryn M.

PD November 1993. TI Does Central Bank Intervention Increase the Volatility of Foreign Exchange Rates? AA Harvard University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4532; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 30. PR \$5.00. JE F30, F31, F33. KW Exchange Rates. Central Bank Intervention. Volatility.

AB Since the abandonment of the Bretton Woods system of fixed exchange rates in the early 1970's, exchange rates have displayed a surprisingly high degree of time-conditional volatility. This volatility can be explained statistically using autoregressive conditional heteroscedasticity models, but there remains the question of the economic source of this volatility. Central bank intervention policy may provide part of the explanation. Previous work has shown that central banks have relied heavily on intervention policy to influence the level of exchange rates, and that these operations have, at times, been effective. This paper investigates whether central bank interventions have also influenced the variance of exchange rates. The results from daily and weekly GARCH models of the \$/DM and \$/Yen rates over volatility over the full period. Further, results indicate that intervention need not be publicly known for it to influence the conditional variance of exchange

rate changes. Secret intervention operations by both the Fed and the Bundesbank generally increased exchange rate volatility over the period.

#### Doyle, C.

PD April 1993. TI Investment and Trade over Networks: Commitment Through Joint Ventures. AU Doyle, C.; Maher, Maria E. AA University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9310; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 13. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE C78, L22, L10, L43, G32. KW Bargaining. Commitment. Networks.

AB We consider investment and trade within a vertically separated network industry. A three firm two period model is used to highlight how investment decisions may lead to problems of commitment. It is demonstrated that commitment problems can be overcome through establishing joint ventures and specific allocations of equity. Our model shows how the commitment problem may be a driving factor in determining the existence of many joint ventures. In some cases joint ventures may be devices aimed at mitigating ex post opportunism leading to a higher level of welfare for consumers.

#### Dumas, Bernard

PD September 1993. TI The World Price of Foreign Exchange Risk. AU Dumas, Bernard; Solnik, Bruno. AA Dumas: HEC and National Bureau of Economic Research. Solnik: HEC. SR National Bureau of Economic Research Working Paper: 4459; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 33. PR \$5.00. JE G12, F31. KW Asset Pricing. Risk Premia. CAPM.

AB We consider a world capital market in which the investor population is heterogeneous. Investors of different countries differ in the prices of goods at which they consume the income from their investments. In such a setting, the international CAPM incorporates rewards for exchange rate risk, in addition to the traditional reward for market-covariance risk. The aim of the paper is to determine whether these additional risk premia empirically play a significant role in the pricing of securities. The test being conducted is a test of a conditional version of the CAPM. It builds on the recent empirical literature which points out that stock market returns may, to some extent, be predicted on the basis of a number of instrumental variables, such as interest rates and dividend yields. All previous tests of the international CAPM with exchange-risk premia have been tests of the unconditional version and have been inconclusive.

PD November 1993. TI Currency Option Pricing in Credible Target Zones. AU Dumas, Bernard; Jennergren, L. Peter; Naslund, Bertil. AA Dumas: HEC School of Management and National Bureau of Economic Research. Jennergren and Naslund: Stockholm School of Sweden. SR National Bureau of Economic Research Working Paper: 4522; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 15. PR \$5.00. JE F31, G12, G13, G15. KW Options Pricing. Currency. Target Zones.

AB This paper develops a model for valuing options on a currency which is maintained within a band. The starting point of our model is the well known Krugman model for exchange-rate behavior within a target zone. Results from model runs

provide insight into evidence reported by other authors if mispricing of currency options by extensions of the Black-Scholes model.

#### Durland, J. Michael

TI Duration Dependent Transitions in a Markov Model of U.S. GNP Growth. AU McCurdy, Thomas H.; Durland, J. Michael.

#### Durlauf, Steven N.

PD October 1993. TI Measuring Noise in Inventory Models. AU Durlauf, Steven N.; Maccini, Louis J. AA Durlauf: University of Wisconsin and National Bureau of Economic Research. Maccini: Johns Hopkins University. SR National Bureau of Economic Research Working Paper: 4487; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 26. PR \$5.00. JE E22. KW Inventories. Production Smoothing. Cost Shocks.

AB This paper has two purposes. One is to assess different models of inventory behavior in terms of their ability to well approximate the realized data on inventories. We do this initially for the pure production smoothing model and then for a sequence of generalizations of the model. Our analysis both performs specification tests as well as measures the deviations of the data from each null model, which we refer to as model noise. This involves the introduction of a noise ratio which provides a metric for measuring the magnitude of the noise component of the data. A second purpose is to explore whether observed cost shocks, including in particular carefully measured series on raw materials prices, can be helpful in explaining inventory movements. We find that the basic production level smoothing model of inventories, augmented by buffer stock motives, observed cost shocks, properly measured, and to a lesser extent stockout avoidance motives, appears to well approximate monthly inventory data.

#### Dutta, Prajit K.

PD September 1993. TI Better Late Than Early: Vertical Differentiation in the Adoption of a New Technology. AU Dutta, Prajit K.; Rustichini, Aldo; Lach, Saul. AA Dutta: Columbia University. Rustichini: CORE. Lach: Hebrew University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4473; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 17. PR \$5.00. JE O31, L13, L15. KW R&D. Product Quality. Innovation.

AB After the initial breakthrough in the research phase of R&D a new product undergoes a process of change, improvement and adaptation to market conditions. We model the strategic behavior of firms in this development phase of R&D. We emphasize that a key dimension to this competition is the innovations that lead to product differentiation and quality improvement. In a duopoly model with a single adoption choice, we derive endogenously the level and diversity of product innovations. We demonstrate the existence of equilibria in which one firm enters early with a low quality good. In such an equilibrium, no monopoly rent is dissipated and the later innovator makes more profits. Incumbent firms may well be the early innovators, contrary to the predictions of the "incumbency inertia" hypothesis.

#### Dynan, Karen E.

PD July 1993. TI The Rate of Time Preference and Shocks to Wealth: Evidence from Panel Data. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 134; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 35. PR no charge. JE D12, D91, E21. KW Consumption. Life Cycle Model. Discount Rate.

AB Recent Euler equation analysis of household expenditure data documents striking differences in rates of consumption growth across households from different socioeconomic groups. Between the mid-1970's and late 1980's, college educated households, white households, and households with high labor incomes exhibited significantly higher rates of consumption growth than non-college-educated households, nonwhite households, and households with low labor incomes, respectively. Previous research interprets this finding as evidence that households in research interprets this finding as evidence that households in certain socioeconomic groups are more willing to defer consumption from early in life to later in life and thus that they are more patient. This study argues that certain households demonstrated faster rates of consumption growth during the 1970's and 1980's at least partly because they experienced favorable wealth shocks that other households did not.

PD July 1993. TI How Prudent are Consumers? AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 135; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 30. PR no charge. JE D91, D12, E21. KW Life Cycle Model. Consumption. Precautionary Saving.

AB Theories of precautionary saving have intuitive appeal and important empirical implications. Despite the recent emphasis on such theories, however, there have been few direct tests of whether the precautionary motive actually is an important force in consumer behavior. This paper attempts to remedy this omission. Using data from the Consumer Expenditure Survey, it presents a test that not only indicates whether precautionary motives are present, but also provides an explicit estimate of the parameter of the utility function that reflects the strength of the precautionary motive, the coefficient of relative prudence. The results of the test suggest that the precautionary-saving motive is not significant and that the estimated coefficient of relative prudence is small. The presence of liquidity-constrained households does not appear to explain this finding, and there is some evidence that self-selection of households into risky environments also cannot explain the results.

PD October 1993. TI Habit Formation in Consumer Preferences: Evidence from Panel Data. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 143; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 24. PR no charge. JE D12, D91, E21. KW Consumption. Life Cycle Model. Time Separability.

AB In recent years, many studies have used household panel

data to study models of consumer behavior in which preferences are time-separable. At the same time, there has been growing interest in the implications of models in which preferences are not time-separable and several recent papers use aggregate consumption data to look for evidence of time-nonseparable utility. This paper builds on previous work by testing the time-separability of preferences with household panel data. The paper presents a simple model of habit formation, a specific type of time-non-separable preferences. The model's first-order condition is estimated using a measure of nondurables and services consumption constructed with data from the Panel Study on Income Dynamics and the Consumer Expenditure Survey. The estimation results imply that habit formation has a moderate influences on consumer behavior. This finding is robust to changes in the specification and to changes in the instrument set.

#### Easterly, William

PD September 1993. TI Good Policy or Good Luck? Country Growth Performance and Temporary Shocks. AU Easterly, William; Pritchett, Lant; Kremer, Michael; Summers, Lawrence. AA Easterly and Pritchett: The World Bank. Kremer: Massachusetts Institute of Technology and National Bureau of Economic Research. Summers: Department of the Treasury and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4474; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 21. PR \$5.00. JE O41, O47, O10. KW Country Characteristics. Economic Growth. Shocks.

AB Much of the new growth literature stresses country characteristics, such as education levels or political stability, as the dominant determinant of growth. However, growth rates are highly unstable over time, with a correlation across decades of .1 to .3, while country characteristics are stable, with cross-decade correlations of .6 to .9. Shocks, especially those to terms of trade, play a large role in explaining variance in growth. These findings suggest either that shocks are important relative to country characteristics in determining long-run growth, or that worldwide technological change determines long-run growth while country characteristics determine relative income levels.

PD October 1993. TI Fiscal Policy and Economic Growth: An Empirical Investigation. AU Easterly, William; Rebelo, Sergio. AA Easterly: The World Bank. Rebelo: University of Rochester and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4499; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 21. PR \$5.00. JE E62, F34, O10. KW Development. Fiscal Policy.

AB This paper describes the empirical regularities relating to fiscal policy variables, the level of development and the rate of growth. We employ historical data, recent cross-section data, and newly constructed public investment series. Our main findings are (i) there is a strong association between the development level and the fiscal structure: poor countries rely heavily on international trade taxes, while income taxes are only important in developed economies; (ii) investment in transport and communication is consistently correlated with growth while the effects of taxation are difficult to isolate empirically.

#### Eberly, Janice C.

TI An Exact Solution for the Investment and Market Value of a Firm Facing Uncertainty, Adjustment Costs, and Irreversibility. AU Abel, Andrew B.; Eberly, Janice C.

#### Edwards, Sebastian

PD October 1993. TI Trade Policy, Exchange Rates and Growth. AA Edwards: University of California, Los Angeles and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4511; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 38. PR \$5.00. JE F14, F10, F43. KW Trade Policy. Economic Performance. Economic Growth.

AB This paper analyzes the relationship between trade policy and economic performance. The paper is divided in two fundamental parts. The first one uses a cross country data set to investigate the relationship between trade policy and productivity growth. It is found that countries that are more open to the rest of the world have experienced faster growth in total factor productivity than countries with high trade barriers. In the second part the recent Latin American experiences with trade liberalization reforms are investigated. It is shown that in the last few years the Latin American countries have gone from having one of the most distorted external sectors, to having very low degrees of protectionism. The extent of the liberalization efforts is documented and the effect on productivity and exports is investigated.

#### Eichberger, Jurgen

PD August 1993. TI Uncertainty Aversion and Dynamic Consistency. AU Eichberger, Jurgen; Kelsey, David. AA Eichberger: University of Melbourne. Kelsey: University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-08; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 19. PR 2 pounds. JE D81. KW Non-Expected Utility. Non-Additive Probability. Updating.

AB This paper applies a proposal of Machina for updating non-expected utility preferences to Schmeidler's non-additive probability model. We discover that the updated preferences may not themselves satisfy Schmeidler's axioms.

#### Eichengreen, Barry

PD September 1993. TI The Political Economy of Fiscal Restrictions: Implications for Europe from the United States. AU Eichengreen, Barry; Bayoumi, Tamim. AA Eichengreen: University of California, Berkeley. Bayoumi: International Monetary Fund. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-020; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 9. PR no charge. JE F41, F33, E62, H72. KW Maastricht Treaty. Fiscal Policy.

AB The Maastricht Treaty's provisions regarding fiscal policy are among its most controversial. Signatories commit to limiting their public-sector debts and deficits to levels generally not exceeding 60 and 3 per cent of GDP, respectively. Whatever the merits of the arguments for these "excessive deficits procedures," there is also the question of their effects. In other words, do self-imposed fiscal restrictions really restrain behavior, or can governments circumvent them? And if fiscal

restrictions restrain, do they also inhibit certain positive functions of fiscal policy? In this paper we summarize some of the findings of a research program in which we have been analyzing, jointly and in collaboration with other investigators, the operation of fiscal restrictions in the United States as a way of shedding light on the likely effects of the excessive deficits provisions of the Maastricht Treaty.

PD September 1993. TI International Monetary Arrangements for the 21st Century. AA University of California, Berkeley. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-021; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 140. PR no charge. JE F31, F33. KW Exchange Rates. Monetary Reform. Monetary Union.

AB Virtually all international monetary regimes with which the world has experience lie in the no-man's land between permanently fixed and freely floating rates. The premise of this study is that this no-man's land of hybrid international monetary systems is rapidly becoming uninhabitable territory. Calls for international monetary reform to reestablish a system of pegged-but-adjustable rates or target zones with periodic realignments will consequently prove futile. Changes in technologies, institutions and politics are eroding the viability of such intermediate arrangements. Increasingly, countries will be forced to choose between greater exchange rate flexibility on the one hand and monetary unification on the other.

PD September 1993. TI The Crisis in the EMS and the Transition to EMU: An Interim Assessment. AA University of California, Berkeley. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-022; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 40. PR no charge. JE F33, F31. KW Monetary Union. Maastricht Treaty.

AB The crisis in the European Monetary System, culminating in July 1993 in events that forced European policymakers to abandon the narrow bands of the pre-existing EMS, poses a fundamental challenge for advocates of the Maastricht way to EMU. This paper analyzes the crisis and its implications in detail. It shows how European officials failed to draw the right lessons from the instability of September 1992 and questions whether they have drawn the right lessons from the July 1993 sequel.

PD November 1993. TI The Reconstruction of the International Economy, 1945-1960. AA University of California, Berkeley. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-028; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 12. PR no charge. JE F01, F02, F43, F30, F10. KW International Trade. International Lending.

AB The reconstruction of the international economy was one of the grand achievements of the post-World War II era. The starting point was the almost total cessation of normal international economic relations. The achievement was the most remarkable boom in international trade and lending the world has ever seen. In the wake of World War II, it was by no means certain that events would turn out this way. There were widespread fears that the international economy would not be rebuilt. The achievement of the post-World War II era was a set of policy initiatives that contained these dangers. They

completed the reconstruction of the international economy and inaugurated a golden age of economic growth.

PD November 1993. TI International Economics and Domestic Politics: Notes on the 1920's. AU Eichengreen, Barry; Simmons, Beth. AA Eichengreen: University of California, Berkeley. Simmons: Duke University. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-029; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 19. PR no charge. JE N14, N24, F41. KW International Economic Policy. Interwar Period. Europe.

AB Recent research on the interwar years points to the importance of international economic policies for the macroeconomics of the 1920's and 1930's. The European experiences considered in this volume can be seen as special cases of a general pattern linking domestic economic performance to international economic policies.

#### Eisenbeis, Robert A.

TI Asymmetric-Information and Principal-Agent Problems as Sources of Value in FSLIC-Assisted Acquisitions of Insolvent Thrifts. AU Cole, Rebel A.; Eisenbeis, Robert A.; McKenzie, Joseph A.

#### Elgar, Jane

PD July 1993. TI The TUC's Bridlington Principles and Inter-Union Competition. AU Elgar, Jane; Simpson, Robert. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 160; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 74. PR no charge. JE J58, J51, J52. KW Trade Unions. Union Organization.

AB In 1991 the government's program of continuing labor law reform identified a new area for legal regulation: inter-union competition for members. For seventy years unions affiliated to the Trades Union Congress (TUC) have agreed to carry out their recruitment and organizational activities in accordance with a set of voluntary principles and procedures which have been known since 1939 as the "Bridlington" principles. Disputes over adherence to these principles can be referred to the TUC for adjudication by a Disputes Committee. Two previous evaluations reached rather different conclusions about the nature of these decisions and their impact on union organization. Lerner found that in the period up to 1957 they had become rigid and bureaucratic and always supported the status quo. By contrast Kalis' survey of the 1950-1974 period found greater sensitivity to local organizational strength even where this was in conflict with national strength or bargaining rights. This paper assesses the validity of these conclusions for the period 1974-1991.

#### Ely, Robin J.

PD July 1993. TI Organizational Demographics and Women's Gender Identity at Work. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-21; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 33. PR \$5.00. JE J16, J70. KW Tokenism. Professional Women.

AB Building on Kanter's (1977) theory of tokenism, this research extends the developing literature on organization

demography to include the impact of sex composition in senior levels of the organization on the work experiences of professional women who are well represented at lower levels. Results showed that in firms where senior women were scarce, sex-role stereotypes persisted, largely to the detriment of women, as the basis for women's own perception of the roles they enacted in their firms and the value their firms placed on those roles. There was some evidence to suggest that such perception may be responsible for the disturbingly high rates of turnover among professional women in firms where men still cluster disproportionately at the top.

PD August 1993. TI Organizational Demographics and the Dynamics of Relationships among Professional Women. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-24; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 37. PR \$5.00. JE J16. KW Tokenism. Professional Women.

AB This paper examines the relationship between women's proportional representation in the upper echelons of organizations and the quality of hierarchical and peer relationships among professional women at work. The concept of social identity is developed and explored as a mechanism through which demographic arrangements influence relationships among women. A triangulation of methods, including both quantitative and qualitative analyses of interview and questionnaire data, is used to compare the dynamics of women's same-sex relationships in firms with relatively low and high proportions of senior women. Results suggest that different demographic structure influence the nature of women's group membership. This, in turn, shapes how they experience their relationships with women at work. In particular, results show that women in firms with relatively low proportions of senior women, when compared to women in firms with relatively high proportions of senior women, were (1) less likely to experience shared gender as a positive basis for identification with women (2) less likely to perceive senior women as role models with legitimate authority and power, (3) more likely to encounter competition as an impediment in their relationships with women peers, and (4) less likely to find support in these relationships. This research also makes three theoretical contributions.

Engle, Robert F.

PD November 1993. TI Index-Option Pricing with Stochastic Volatility and the Value of Accurate Variance Forecasts. AU Engle, Robert F.; Kane, Alex; Noh, Jaesun. AA Engle: University of California, San Diego and National Bureau of Economic Research. Kane and Noh: University of California, San Diego. SR National Bureau of Economic Research Working Paper: 4519; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 14. PR \$5.00. JE G12, G13, C32. KW Options Pricing. Volatility. Forecasting. Asset Return Variance.

AB In pricing primary-market options and making secondary markets, financial intermediaries depend on the quality of forecasts of the variance of the underlying assets. Hence, the gain from improved pricing of options would be a measure of the value of a forecast of underlying asset returns. NYSE index returns over the period of 1968-1991 are used to suggest that pricing index options of up to 90 days maturity would be more accurate when: (1) using ARCH specifications in place of a moving average of squared returns; (2) using Hull and White's

(1987) formula; (3) accounting explicitly for weekends and the slowdown of variance whenever the market is closed.

PD November 1993. TI A Test of Efficiency for the S&P 500 Index Option Market Using Variance Forecasts. AU Engle, Robert F.; Kane, Alex; Noh, Jaesun. AA Engle: University of California, San Diego and National Bureau of Economic Research. Kane and Noh: University of California, San Diego. SR National Bureau of Economic Research Working Paper: 4520; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 24. PR \$5.00. JE G12, G13, C32. KW Variance Forecasts. Straddle Trading. Implied Volatility. GARCH.

AB To forecast future option prices, autoregressive models of implied volatility derived from observed option prices are commonly employed [see Day and Lewis (1990), and Harvey and Whaley (1992)]. In contrast, the ARCH model proposed by Engle (1982) models the dynamic behavior in volatility, forecasting future volatility using only the return series of an asset. We assess the performance of these two volatility prediction models from S&P 500 index options market data over the period from September 1986 to December 1991 by employing two agents who trade straddles, each using one of the two different methods of forecast. Straddle trading is employed since a straddle does not need to be hedged. Each agent prices options according to her chosen method of forecast, buying and selling straddles when her forecast price for tomorrow is higher (lower) than today's market closing price, and at the end of each day the rates of return are computed. We find that the agent using the GARCH forecast method earns greater profit than the agent who uses the implied volatility regression (IVR) forecast model. In particular, the agent using the GARCH forecast method earns a profit in excess of a cost of \$0.25 per straddle with the near-the-money straddle trading.

PD November 1993. TI Estimating Sectoral Cycles Using Cointegration and Common Features. AU Engle, Robert F.; Issler, Joao Victor. AA Engle: University of California, San Diego and National Bureau of Economic Research. Issler: University of California, San Diego. SR National Bureau of Economic Research Working Paper: 4529; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 29. PR \$5.00. JE C32, E32, E20, E30. KW Sectoral Output. Business Cycles. Sectoral Cycles. Cointegration.

AB This paper investigates the degree of short run and long run comovement in U.S. sectoral output data by estimating sectoral trends and cycles. A theoretical model based on Long and Plosser (1983) is used to derive a reduced form for sectoral output from first principles. Cointegration and common features (cycles) tests are performed and sectoral output data seem to share a relatively high number of common trends and a relatively low number of common cycles. A special trend-cycle decomposition of the data set is performed and the results indicate a very similar cyclic behavior across sectors and a very different behavior for trends. In a variance decomposition exercise, for prominent sectors such as Manufacturing and Wholesales/Retail Trade, the cyclical innovation is more important than the trend innovation.

Engsted, Tom

PD December 1993. TI Money Demand, Expectations, and the Forward-Looking Model: A Comment. AU Engsted,

Tom; Haldrup, Niels. AA University of Aarhus. SR Aarhus Institute of Economics Memo: 1993-23; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. PG 11. PR no charge. JE E41, C10, C12, C32. KW Adjustment Costs. Rational Expectations. Cointegration. AB In a recent paper Cuthbertson and Taylor (1990) use the Campbell-Shiller method to investigate a forward-looking, rational expectations model of money demand based on a linear quadratic adjustment cost model. In this note we point out a couple of pitfalls in the way that Cuthbertson and Taylor implement the Campbell-Shiller methodology, and we propose an alternative and, we believe, better implementation. The note is completed with an empirical application to UK money demand.

#### Ennew, Chris

TI Failure Buy-Outs and Buy-Out Failure. AU Wright, Mike; Wilson, Nick; Robbie, Ken; Ennew, Chris.

#### Epstein, Larry G.

PD November 1993. TI A Revealed Preference Analysis of Asset Pricing Under Recursive Utility. AU Epstein, Larry G.; Melino, Angelo. AA University of Toronto and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4524; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 22. PR \$5.00. JE G12, G10, D12. KW Asset Returns. Recursive Utility. Consumption Growth. AB This paper considers a representative agent model of asset prices based on a recursive utility specification. A constant elasticity of intertemporal substitution is assumed but the risk-preference component of utility is restricted only by qualitative, nonparametric regularity conditions. The principal contribution is to determine the exhaustive implications of this semiparametric recursive utility model for the one-step ahead joint probability distribution for consumption growth and asset returns.

#### Escribano, Alavaro

TI Asymmetric and Time-Varying Error-Correction: An Application to Labour Demand in the U.K. AU Burgess, Simon M.; Escribano, Alavaro; Pfann, Gerard A.

#### Evans, Charles L.

TI Labor Productivity during the Great Depression. AU Bordo, Michael D.; Evans, Charles L.

#### Fallick, Bruce Chelmsky

PD August 1993. TI The Hiring of New Labor by Expanding Industries. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 139; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 28. PR no charge. JE J21, J23, J69. KW Industry Growth. Sectoral Shifts. Labor Demand.

AB This paper documents a tendency for workers newly hired into relatively fast-growing industries to be drawn disproportionately from the ranks of new entrants and reentrants to the labor force. This tendency is likely to lengthen the unemployment of incumbent workers whose job loss is

associated with sectoral shifts in the demand for labor. The measurement of unemployment may also be affected. The tendency is explained by the prevalence of part-time work in the fast-growth industries and by the degree of unionization of the industries in which the incumbents previously worked. The largest surprise is that older workers are more likely than younger workers to be part of an expanding industry's new labor force.

#### Feddersen, Timothy J.

PD September 1993. TI The Swing Voter's Curse. AU Feddersen, Timothy J.; Pesendorfer, Wolfgang. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1064; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 20. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D72. KW Rational Abstention. Costless Voting. Winner's Curse.

AB One of the central puzzles within the formal literature is participation in large elections. If voting is costly and there is only a very small probability of actually affecting the outcome then there is no reason for voters to participate. On the other hand, if voting is costless all voters should participate. What we actually observe is something in between. We use the same insight that underlies the "winner's curse" in economics to demonstrate that rational voters might abstain even if voting is costless. In this paper we consider a model in which voters are privately and asymmetrically informed about the benefits of electing either of two candidates. We show that it is rational for less informed individuals to abstain even when voting is costless and even when they have an ex ante strict preference between the candidates. Furthermore, participation may increase as the probability of being pivotal decreases. Finally, our model predicts that an increase in the percentage of independents will result in higher levels of abstention and a higher probability of electing the candidate preferred by a majority of the fully informed electorate.

#### Feenstra, Robert C.

PD November 1993. TI Market Structure and International Trade: Business Groups in East Asia. AU Feenstra, Robert C.; Yang, Tzu-Han; Hamilton, Gary G. AA Feenstra: University of California, Davis and National Bureau of Economic Research. Yang: Council for Economic Planning and Development, TAIWAN. Hamilton: University of California, Davis. SR National Bureau of Economic Research Working Paper: 4536; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE F10, F14, D40. KW Market Structure. Trade Patterns. International Trade.

AB In this paper we study the effect of market structure on the trade performance of South Korea, Taiwan, and Japan. We center our analysis on Korea and Taiwan, countries which have very different market structures; Korea has many large, vertically-integrated business groups known as chaebol, whereas business groups in Taiwan are smaller and horizontally-integrated in the production of intermediate inputs. The exports of these countries to the United States are compared using indexes of product variety and "product mix", which are constructed at the 5 digit industry level. It is found

that Taiwan tends to export a greater variety of products to the U.S. than Korea, and this holds across nearly all industries. In addition, Taiwan exports relatively more high-priced intermediate inputs, whereas Korea exports relatively more high-priced final goods. We argue that these results confirm the importance of market structure as a determinant of trade patterns.

#### Feldstein, Martin

PD October 1993. TI The Effect of Marginal Tax Rates on Taxable Income a Panel Study of the 1986 Tax Reform Act. AA National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4496; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 42. PR \$5.00. JE H20, H24, H22. KW Tax Rates. Taxable Income.

AB This paper reports new estimates of the sensitivity of taxable income to changes in tax rates based on a comparison of the tax returns of the same individual taxpayers before and after the 1986 tax reform. This comparison is done by using a panel of more than 4000 individual tax returns created by the Treasury that matches tax returns for the same taxpayers in different years. The analysis emphasizes that the response of taxable income is much more general than the response of traditional measures of labor supply and is likely to be much more sensitive to tax rates. The evidence shows a substantial response of taxable income to changes in marginal tax rates. The differences-of-differences calculations imply an elasticity of taxable income with respect to the marginal net-of-tax rate that is at least one and could be substantially higher. There is a brief discussion and simulation analysis of the implications of these estimates for the likely impact of the 1993 tax rate increases on tax revenues. Even the lowest estimates elasticity implies that the tax rate changes enacted in 1993 will lead to little additional personal income tax revenue.

#### Fender, John

PD July 1992. TI Open Economy Macroeconomics Under Imperfect Competition: A Two Country Model. AU Fender, John; Yip, Chong K. AA Fender: University of Birmingham. Yip: Georgia State University. SR University of Birmingham Department of Economics Discussion Paper: 92-18; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 25. PR 2 pounds. JE F41. KW Open Economy. Unemployment Benefit. Money Supply.

AB This paper constructs a two country macroeconomic model where prices are set by imperfectly competitive firms and wages by trade unions. Unemployment benefit is nominally rigid in at least one country. The effects of money supply changes under both fixed and flexible exchange rates, and exchange rate changes under fixed rates, are considered. The results change significantly if it is assumed that in one country unemployment benefit is fully indexed.

PD February 1993. TI The Macroeconomics of a Reforming Centrally Planned Economy with Queuing and Resale. AU Fender, John; Laing, Derek. AA Fender: University of Birmingham. Laing: University of Essex and Pennsylvania State University. SR University of Birmingham Department of Economics Discussion Paper: 93-02; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 16. PR 2 pounds. JE P21, E10. KW Central

Planning. Market Reform. Economic Transition.

AB In this paper a two period macroeconomic model is constructed to analyze the implications of anticipated market reforms for the economic performance of a centrally planned economy (CPE). In the first period an excess demand for goods develops at prices set by central planners, forcing consumers either to queue to obtain goods from state retailers or to purchase goods on the black market. In the second period a competitive market economy prevails. The model is used to analyze issues such as the role of foreign aid and the likely impact of domestic monetary and fiscal reforms.

PD October 1993. TI Altruism, Ethics and Economics: The Significance of Non-Egoistic Preferences for Economics. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-12; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 21. PR 2 pounds. JE A13, D63. KW Egoism. Altruistic Behavior. Prisoner's Dilemma.

AB The aim of this paper is to examine some ways in which the existence of altruism is relevant for economics and the design of economic institutions. However, first of all, it considers the preliminary questions of how altruism should be defined and whether it exists. We argue that some behavior might be regarded as genuinely altruistic. The remainder of the paper is concerned with the implications of the existence of altruism. We should be concerned with both positive and normative questions. The question of how the existence of altruism affects the behavior of the economy—the positive question—is of course of interest. But there is also the normative question of whether more altruism in the economy would be desirable—would a little more altruism, at the margin, be beneficial? We argue that it is possible that greater altruism may make things worse.

#### Ferguson, Ronald F.

PD September 1993. TI New Evidence on the Growing Value of Skill and Consequences for Racial Disparity and Returns to Schooling. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-34; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 25. PR \$5.00. JE I20, J24, J31. KW Test Scores. Skill. Wages.

AB This study uses test scores to establish that the market value of basic reading and math skills rose during the 1980's. Further, the rising price of skill accounts for two patterns over which labor economists have puzzled since the late 1980's: growth in the return to schooling for young men and increases in the wage gap between young black and white adult males. The gap in skill between young black and white males was narrowing during the 1980's, but not rapidly enough to offset growth in the price of skill. Hence, disparity rose. Data come from the National Longitudinal Survey of Youth, 1979 Panel. Most of the study focuses on one age level in order to avoid ambiguity associated with mixing age groups. The paper selected as the focal age level because twenty three is the only age represented in the NLSY for each year from 1980 through 1988. Estimating a series of overlapping cross-section regressions, each using three years of data, the paper shows a smooth but nonlinear trend in which most of the increase in the price of skill came in the first half of the decade. The increase value of schooling during the period and, with one exception,

all of the growth in racial disparity. The exception is young high-school-educated men in the Midwest region. For this latter group, our estimates do not account for the growth in racial disparity from 1985 through 1988.

#### Fernald, John G.

TI Constant Returns and Small Markups in U.S. Manufacturing. AU Basu, Susanto; Fernald, John G.

TI Are Apparent Productive Spillovers a Figment of Specification Error. AU Basu, Susanto; Fernald, John G.

#### Fershtman, Chaim

PD July 1993. TI Social Status, Education and Growth. AU Fershtman, Chaim; Murphy, Kevin M.; Weiss, Yoram. AA Fershtman: Tel-Aviv University, Murphy: University of Chicago. Weiss: Tel-Aviv University and University of Chicago. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1054; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 32. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE E20, I20, J30, O12, O40. KW Social Status. Growth.

AB A common feature of recent growth models is the existence of externalities associated with human capital. Each worker in choosing his level of schooling or occupation, ignores the impact of his choice on future generations. Thus, in general, the level of investment in human capital is suboptimal. One possible corrective mechanism is to reward investment in human capital with social status. As recognized by sociologists, the occupational social status is an important factor in occupational choice. The paper investigates the implications of social rewards on the distribution of talents in society and consequently on the process of economic growth. We consider two sources of heterogeneity among workers: non wage income and ability. We find that the thrive for status may be counterproductive, inducing an inefficient allocation of talent. A greater emphasis on status may induce the "wrong" individuals i.e. those with low ability and high wealth to acquire schooling, causing workers with high ability but low wealth to leave the growth enhancing occupations. This crowding out effect, taken alone, discourages growth. In general, growth may be enhanced by an increase in the number of workers who invest in education. However, the inefficiency in the allocation of talent persists.

#### Fielding, Antony

PD 1991. TI Scoring Functions for Ordered Classifications in Statistical Analysis. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-15; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 23. PR 2 pounds. JE C10. KW Integer Scores. Canonical Correlations.

AB Scoring ordered classifications prior to statistical analysis is discussed. A review of scores based on integers, canonical correlations, logistic maximum likelihood, and ridsits with applications is presented. The conditional mean scoring function with examples is considered and shown to satisfy a reasonable set of postulates on scoring functions. Methods based on compounded functions of categorical data are applied

to scores applied to one variable in two way classifications, and appropriate algorithms developed. Through the medium of existing data sets the sensitivity of these methods to different scoring systems is examined. It is concluded that apart from data which arises from skewed distributions little is to be lost by using simple integer scores.

PD March 1992. TI Axiomatic Approaches to Scoring Ordered Classifications. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-06; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 27. PR 2 pounds. JE C14. KW Ordered Classifications. Categorical Data. Scoring.

AB This paper discusses axiomatic approaches to ordered classifications. It discusses several approaches which have been suggested in the past and proposes some alternatives. The conclusion is that these alternatives are more manageable than ones previously suggested.

PD August 1993. TI Institutional Disparities in the Cost Effectiveness of GCE "A" Level Provision: A Multilevel Approach to the Student Perspective. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-10; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 19. PR 2 pounds. JE I20, I21, D61. KW Education. Advanced Level. School Effects.

AB The data on which this paper is based are derived from a study of the cost-effectiveness of various types of institutional provision for the General Certificate of Education at Advanced Level (Thomas (1990)). The latter is usually taken at the age of around 18 by students remaining in full time education in England and Wales. The institutions concerned are in the publicly maintained sector. Typically there are four main types in this sector: sixth forms in secondary schools (SF); sixth form colleges (SFC); tertiary colleges (T); and colleges of further education. The latter will usually offer a wide range of other full-time and part-time courses than just "A" levels. Interest has centered on whether there are differences in the cost-effectiveness of the four different types of institution as reflects their different organizational structures. In the present paper the focus is on the student perspective. In broad terms it is sought to assess the attractiveness of different institutional types to individual students in terms of cost-effectiveness to them.

#### Fischer, Carolyn

PD November 1993. TI Different Environmental Services for Different Income Groups in LDC Cities: Second-Best Efficiency Arguments. AU Fischer, Carolyn; Porter, Richard C. AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-28; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 25. PR \$4.00; payable to the Department of Economics. JE D62, H41, H31. KW Urban Services. Externalities.

AB The conventional arguments for providing basic environmental services to the poor in less developed country (LDC) cities run to externalities and merit-goods. These arguments urge that cities make some kind of basic service available to the poor because they will otherwise suffer socially unacceptable consequences to themselves and/or impose



negative externalities on others. We offer different kinds of arguments for providing basic environmental services to the poor in LDC cities: second-best efficiency arguments. When the poor are many and very poor, the city may maximize social welfare, within a budget constraint, by offering two kinds of basic services to its residents, a first-class service that the rich will want and a second-class service that the poor will be able to afford.

#### Fitzgerald, Terry

TI Banking in Computable General Equilibrium Economies: Technical Appendices I and II. AU Alvarez, Fernando; Fitzgerald, Terry.

#### Fleishman, Charles A.

PD August 1993. TI The Causes of Business Cycles and the Cyclicalities of Real Wages. AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-21; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 32. PR \$4.00; payable to the Department of Economics. JE E24, E32. KW Sticky Wages. Technology Shocks. Aggregate Demand Shocks.

AB This paper estimates the cyclicalities of real wages using a VAR approach. Long-run restrictions on the behavior of aggregate hours and output identify labor supply, technology, oil price, and aggregate demand shocks. It is shown that real wages are procyclical in response to technology and oil price shocks but are countercyclical in response to aggregate demand shocks. The evidence is consistent with models where nominal wages are stickier than nominal prices. The results point out the importance of looking at the cyclicalities of real wages in response to the shocks that drive business cycles, rather than at the simple correlation between real wages and output or the unemployment rate.

#### Flood, Robert P.

PD October 1993. TI Fixing Exchange Rates: A Virtual Quest for Fundamentals. AU Flood, Robert P.; Rose, Andrew K. AA Flood: International Monetary Fund and National Bureau of Economic Research. Rose: University of California, Berkeley and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4503; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 21. PR \$5.00. JE F31, F40, F41. KW Exchange Rates. Exchange Rate Volatility. Macroeconomic Stability.

AB Fixed exchange rates are less volatile than floating rates. But the volatility of macroeconomic variables such as money and output does not change very much across exchange rate regimes. This suggests that exchange rate models based only on macroeconomic fundamentals are unlikely to be very successful. It also suggests that there is no clear tradeoff between reduced exchange rate volatility and macroeconomic stability.

#### Ford, J. L.

PD 1991. TI Measures of Country Risk: A Non-Linear Probability Analysis. AU Ford, J. L.; Mpuku, Herrick C. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-03; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 33. PR 2 pounds. JE F11, G15, F34. KW Default

Risk. International Lending. International Trade.

AB This paper develops a measure of economic risk inherent in international trade and lending using a binary logistic model. The probability of default on outstanding loans in any period is considered to be determined by the country's economic performance, as judged by various economic indicators. The paper modifies pre-existing methods by using different definitions, variables and a pooled cross-section and time series sample, as well as an estimation procedure incorporating dummy variables to account for qualitative differences between countries and time.

PD 1991. TI Revenue Risks, Risk Attitudes and the Optimal Output and Insurance Cover of a Competitive Firm. AU Ford, J. L.; Mpuku, Herrick C.; Pattanaik, Prasanta K. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-06; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 16. PR 2 pounds. JE D81, G20. KW Insurance Premium. Agency Strategy.

AB This paper explores some issues relating to a competitive firm's choice of output and insurance cover when faced with certain types of "revenue risk." The analysis generalizes and extends existing results. In particular, we examine the implications for the level of insurance cover, of different risk attitudes of the firm and of changes in revenue risks. We also analyze the case of a variable premium scheme as distinct from a fixed premium scheme considered in earlier results, and assess which of the two schemes a government agency should adopt as an optimal stimulant to output.

PD 1991. TI Perspective Theory, Preference Reversal, the Allais Paradox and Other Phenomena: An Exposition and a Defence. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-13; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 25. PR 2 pounds. JE D81, A12. KW Economic Psychology. Choice Under Uncertainty.

AB Perspective Theory provides an alternative approach to decision-making under uncertainty to that offered by expected utility theory and related theories. In this paper the probability-variant of Perspective Theory is employed to explore the ability of the theory to account for the findings of the laboratory experiments on economic psychology, which have produced phenomena such as preference reversal and the Allais paradox. It is demonstrated that Perspective Theory can account for all of the major and minor kinds of observed phenomena, except for the so-called isolation effect.

PD 1991. TI Shackle on Expectation, Investment, the Business Cycle and Economic Development. AU Ford, J. L.; Peng, Wensheng. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-14; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 30. PR 2 pounds. JE E32, E12, D84. KW Expectations. Aggregate Income. Business Cycles.

AB This paper considers critically Shackle's two Keynesque theories of the business cycle, which are founded upon the role of expectations and investment intentions. The theories are formalized and the resulting paths of income are shown to embody key features of real world business cycles (e.g., a rapid downturn after the crisis and multi-periodicity) as well as

exhibiting long-term growth.

TI An Error Correction Model for the Demand for International Reserves: The Cases of Brazil and Venezuela. AU Dickinson, David G.; Ford, J. L.; Huang, Guobo.

PD May 1992. TI The Demand for International Reserves in China: An ECM Model with Domestic Monetary Disequilibrium. AU Ford, J. L.; Huang, Guobo. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-10; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 37. PR 2 pounds. JE F31. KW International Reserves. Error Correction Model. Stability.

AB This paper employs a version of the error correction model to investigate the demand for international reserves in a typical planned economy, China. Disturbances from the domestic markets are considered by incorporating the monetary disequilibrium into the model. Our main conclusions are: (1) reserves holdings in China have maintained a stable relationship with several determinants since the 1950's, confirming China's prudential foreign reserve policy; and (2) monetary disequilibrium has significant short-run effects on reserve holdings, reflecting the authorities' "general balancing" policy in the annual planning.

PD June 1992. TI On Measuring the Value of Life. AU Ford, J. L.; Pattanaik, Prasanta K.; Wei, Xiangdong. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-14; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 9. PR 2 pounds. JE J17. KW Value of Life. Willingness to Pay.

AB This paper demonstrates that, except in very restrictive conditions, there is a discrepancy between the value of human life arrived at on the basis of an individuals' willingness to pay and the value of human life arrived at on the basis of the compensating wage differential approach in a multi-period framework. It also shows that in normal cases, the latter value is generally higher than the former if the reduction in the probability of on-the-job death lasts longer than one period.

#### Frankel, Jeffrey A.

PD January 1993. TI Trade Blocs and Currency Blocs. AU Frankel, Jeffrey A.; Wei, Shang-Jin. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-11; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 25. PR \$5.00. JE F20, F14, F31. KW Trading Blocs. Gravity Model. Exchange Rates.

AB Using the gravity model to examine bilateral trade patterns throughout the world, we find clear evidence of trading blocs in Europe, the Western Hemisphere, East Asia and the Pacific. In Europe, it is the EC that operates as a bloc, not including EFTA. Two EC members trade an extra 55 percent more with each other, beyond what can be explained by proximity, size, and GNP/capita. We also find slight evidence of trade-diversion in 1990. Turning to the possibility of currency blocs, we find a degree of intra-regional stabilization of exchange rates, especially in Europe. Not surprisingly, the European currencies link to the DM and Western Hemisphere countries peg to the dollar. East Asian countries, however, link to the dollar, not the yen. We also find some tentative cross-

section evidence that bilateral exchange rate stability may have a (small) effect on trade. A sample calculation suggests that if real exchange rate variability within Europe were to double, as it would if it returned from the 1990 level to the 1980 level, the volume of intra-regional trade might fall by an estimated 0.7 per cent.

TI Financial Links Around the Pacific Rim: 1982-1992. AU Chinn, Menzie David; Frankel, Jeffrey A.

PD October 1993. TI Sterilization of Money Inflows: Difficult (Calvo) or Easy (Reisen)? AA University of California, Berkeley and International Monetary Fund. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-024; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 29. PR no charge. JE F41, F31, E58, F32. KW Capital Inflows. Sterilized Intervention.

AB Some countries undergoing exchange-rate-based stabilization and financial liberalization in Latin America and elsewhere have faced large capital inflows since 1991. Many have tried to sterilize the reserve inflows. Calvo and co-authors argue essentially that sterilization is more difficult than generally realized, due to the interest costs on sterilization bonds. Reisen argues essentially that sterilization is easier than generally believed. This paper reviews the issues in the simplest textbook model. The conclusions are that local interest rates are not likely to rise if the source of the disturbance is an exogenous capital inflow, but will rise if the disturbance is an increase in money demand or an increase in exports. In every case, sterilized intervention will leave interest rates higher than they would be if the inflow took place unsterilized.

PD October 1993. TI Is There a Currency Bloc in the Pacific? AU Frankel, Jeffrey A.; Wei, Shang-Jin. AA Frankel: University of California, Berkeley. Wei: Harvard University. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-025; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 29. PR no charge. JE F15, F33. KW Economic Integration. Trade Liberalization.

AB The study of international economic integration - the strengthening of trade and financial links - has acquired a new geographic dimension. Now we are curious not only about the speed or sequence with which a particular country liberalizes trade and financial barriers, but also about whether it chooses to do so preferentially vis-a-vis some neighbor countries, and not others.

PD October 1993. TI Emerging Currency Blocs. AU Frankel, Jeffrey A.; Wei, Shang-Jin. AA Frankel: University of California, Berkeley. Wei: Harvard University. SR University of California at Berkeley Center for International and Development Economics Research Working Paper: C93-026; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. PG 29. PR no charge. JE F15, F31, F33, F36. KW Trade Blocs. Gravity Model. Exchange Rate Uncertainty.

AB Using the gravity model to examine bilateral trade patterns throughout the world, we find clear evidence of trading blocs in Europe, the Western Hemisphere, East Asia, and the Pacific. In Europe, it is the EC that operates as a bloc, not including EFTA. Two EC members trade an extra 55 percent more with each other, beyond what can be explained by

proximity, size, and GNP/capita. Turning to the possibility of currency blocs, we find a degree of intra-regional stabilization of exchange rates, especially in Europe. Not surprisingly, the European currencies link to the DM, while Pacific currencies link to the dollar. We also find some cross-section evidence that bilateral exchange rate stability may have had a (small) role in promoting intra-bloc trade during the period 1965-1980. In 1980, lower exchange rate variability within Europe, compared to the worldwide norm, increased trade by 4.4 percent, by one estimate (less, in an estimate that corrects for simultaneity).

### Frech, H.E. III

PD September 1993. TI An Essay on State-Dependent Utility, the Tort System as Insurance and Strict Liability versus Negligence. AA University of California, Santa Barbara. SR University of California at Santa Barbara Department of Economics Working Paper: 7-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. PG 43. PR no charge. JE D81, K13, D61, L51. KW Tort Law. Uncertainty. Compensation.

AB The paper summarizes the theory of optimal insurance compensation under state-dependent utility (where the marginal utility of wealth depends on health or life and death) and applies it to the U.S. tort system. State-dependent utility undermines the argument for complete insurance, most often calling for less than complete compensation. Setting aside issues of deterrence of risky behavior, applying this analysis to the tort system suggests for minimizing, not maximizing, payments to plaintiffs. In a world where deterrence considerations are also important, the best compromise would seem to be a negligence rule, rather than strict liability. The paper provides a rough quantitative estimate of the harm to consumer welfare caused by the existing tort system.

### Freeman, Charles

TI Collateral Damage: How Refinancing Constraints Exacerbate Regional Recessions. AU Caplin, Andrew; Freeman, Charles; Tracy, Joseph.

### Freeman, Richard B.

PD July 1993. TI What Direction for Labour Market Institutions in Eastern and Central Europe? AA Harvard University, National Bureau of Economic Research, and London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 157; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 38. PR no charge. JE P52, Q52, J50. KW Economic Transition. Labor Relations. Tripartite Forums. AB In this paper I examine the evolution of labor relations institutions during the initial phase of marketization in Poland, Hungary, and Czechoslovakia and develop a model of changing support for reforms during the transition to a market economy. I find surprising stability in labor institutions in the first stage of transition to a market economy, but dramatic changes in labor outcomes. My model predicts a U-shaped curve of support for a successful reform program, with support falling among those who fail to advance rapidly in the new economic environment. I assess how different labor arrangements are likely to affect workers' tolerance for the costs of transition; the ability of those who suffer in transition to undertake mass protests; and to provide information to governments about program failures. My analysis suggests that the most likely labor relations

outcome in Eastern European marketizing economies will be weak and fragmented unionism, concentrated in the public sector, and little or no unionism in the growing private sector, save in large joint ventures.

TI Did the Thatcher Reforms Change British Labour Market Performance? AU Blanchflower, David G.; Freeman, Richard B.

PD September 1993. TI Getting Together and Breaking Apart: The Decline of Centralised Collective Bargaining. AU Freeman, Richard B.; Gibbons, Robert S. AA Freeman: National Bureau of Economic Research. Gibbons: Cornell University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4464; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 30. PR \$5.00. JE J51, J50. KW Labor Relations. Collective Bargaining.

AB This paper studies the stability of centralized wage-setting systems in light of the on-going decentralization of labor relations in much of the Western world. It takes the decline of peak-level bargaining in Sweden, the traditional archetype of centralized collective bargaining, as its key case for study. We argue that centralization offers potential economic gains by internalizing the costs of inefficient wage inflation. With this potential benefit, however, comes a cost: centralized decisions are not sufficiently responsive to local conditions. To avoid excessive inflexibility, the center can allow for "wage drift" at the local level (i.e., local wage settlements above the central agreement). Centralized wage-setting systems face a tradeoff: allowing less drift makes it easier to monitor local bargaining pairs but harder to achieve the appropriate responsiveness to local conditions. We develop a game-theoretic model of this tradeoff, and consider how the center's optimal policy moves towards decentralization as the cost of inflexibility rises.

### Fullerton, Don

PD August 1993. TI Environmental Costs Paid by the Polluter or the Beneficiary? The Case of CERCLA and Superfund. AU Fullerton, Don; Tsang, Seng-Su. AA Fullerton: Carnegie Mellon University and National Bureau of Economic Research. Tsang: Carnegie Mellon University. SR National Bureau of Economic Research Working Paper: 4418; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 26. PR \$5.00. JE Q30, Q38. KW Environmental Policy. Waste Management. Hazardous Waste. Superfund Taxes.

AB The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 follows the "polluter pays" principle by placing retroactive liability on responsible firms. Yet this cost is borne by current shareholders who did not benefit from past low-cost waste management. This paper introduces a "beneficiary pays" principle that burdens consumers who benefitted from lower prices. An input-output model is developed to calculate the effects of alternative tax rules on output prices. We find: (1) that the increase in commodity prices contributed by current Superfund taxes is only a small fraction of the price increase that would have fully covered the cost of controlling hazardous waste; and (2) current Superfund taxes do not raise the prices of goods associated with the most pollution.

**Gagnon, Joseph E.**

PD September 1993. TI Is There a World Real Interest Rate? AU Gagnon, Joseph E.; Unferth, Mark D. AA Gagnon: Board of Governors of the Federal Reserve System. Unferth: Northwestern University. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 454; Division of International Finance, Board of Governors of the Federal Reserve System, Washington DC 20551. PG 15. PR no charge. JE F30, F40, G15. KW Interest Rate Parity, Purchasing Power Parity. AB This study uses panel data techniques to estimate a common component of the ex post real interest rates of nine countries with liberal capital markets over the past 15 years. We show that the residuals from such a regression have almost no serial correlation, and that each country's real interest rate is highly correlated with the estimated world real interest rate. The primary exception to these findings is the behavior of the U.S. real interest rate, which exhibits large and persistent deviations from the estimated world real interest rate.

**Gao, Shumei**

PD August 1992. TI Effects of VER's on Export Product Composition. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-17; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 14. PR 2 pounds. JE F10, F13. KW Voluntary Export Restraints, Upgrading Effect, Export Product Mix.

AB This paper examines the change in export product mixes induced by voluntary export restraints (VER's). It shows that under perfect competition, the export product mix will shift in favor of the more expensive product or the less expensive one depending on the initial free trade prices of the products concerned, the own price elasticities of demand and supply, and the cross price elasticities of demand and supply between different products.

**Gardiol, Lucien**

TI An Asymptotic Expansion for the Distribution of Test Criteria Which are Asymptotically Distributed as Chi-Squared Under Contiguous Alternatives. AU Holly, Alberto; Gardiol, Lucien.

**Garratt, Rod**

PD July 1993. TI Further Evidence of the Necessity of Sunspots. AU Garratt, Rod; Shell, Karl. AA Garratt: University of California, Santa Barbara. Shell: Cornell University. SR University of California at Santa Barbara Department of Economics Working Paper: 6-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. PG 6. PR no charge. JE C62, D51. KW Sunspot Equilibrium, Indivisibilities, Extrinsic Uncertainty.

AB We describe some static economies for which a (certainly) Walrasian equilibrium does not exist but a sunspot equilibrium does exist. Our work depends on the indivisibility of a freely produced good in economies with similar consumers.

**Gaynor, Martin**

PD September 1993. TI Uncertain Demand, the Structure of Hospital Costs, and the Cost of Empty Hospital Beds.

AU Gaynor, Martin; Anderson, Gerard F. AA Gaynor: Johns Hopkins University and National Bureau of Economic Research. Anderson: Johns Hopkins University. SR National Bureau of Economic Research Working Paper: 4460; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 35. PR \$5.00. JE I12, I28. KW Health Care, Demand Uncertainty, Excess Capacity.

AB One of the fundamental facts of the environment hospitals face is uncertainty over demand for their services. This uncertainty leads hospitals to hold excess standby capacity to avoid turning away patients. In this paper we reformulate the theory of cost and production to take account of this uncertainty. We then use this model to calculate the cost of empty hospital beds. Utilized capacity in the hospital industry, as measured by the inpatient hospital bed occupancy rate, has gradually declined since 1980. Congress and the Administration are concerned that the costs associated with empty beds represent wasteful expense and some have proposed an adjustment to Medicare payment rates which will penalize hospitals with low occupancy rates. We estimate a short run cost function for a hospital facing uncertain demand using data from a national sample of over 5000 hospitals for the years 1983-1987. The traditional cost model is strongly rejected in favor of the reformulated model.

**Gehrig, Thomas P.**

PD March 1993. TI Quacks, Lemons and Self Regulation: A Welfare Analysis. AU Gehrig, Thomas P.; Jost, Peter J. AA Gehrig: Northwestern University. Jost: Universitat Basel, Switzerland. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1057; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 27. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D60, D83, L15, L51. KW Self-Regulation, Quality Standards, Experience Goods.

AB The paper provides a framework in which suppliers of experience goods find it in their best interest to provide and enforce quality standards. This self-regulatory outcome is compared to various forms of statutory regulation, such as price regulation and quality regulation. The comparison is attractive, since the suppliers can observe each others' product quality at lower cost than customers or policy maker. As long as quality is the only product variable unknown to consumers and policy makers, any self-regulatory outcome can be replicated by an appropriate statutory policy. However, when additional variables (such as cost parameters) are private information of the suppliers, self-regulation may be strictly socially desirable.

PD August 1993. TI Intermediation in Search Markets. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1058; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 20. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE C78, D83, L12. KW Intermediation, Incomplete Information, Price Competition, Transaction Costs. AB In markets, in which exchange requires costly search for trading partners, intermediaries can help to reduce the trading

frictions. This intuition is modelled in a framework with heterogeneous agents, who have the choice between intermediated exchange and search accompanied by some bargaining procedure. The equilibria of such a game are characterized. In the case of a monopolistic intermediary the tradeoff between the bid-ask spread and the costs of delay during private search determine the intermediary's clientele. In equilibrium the monopolist charges a positive spread. Traders with large gains from trade prefer to deal with him, whereas traders with relatively low gains from trade engage in search. In case of competition among intermediaries the classical Bertrand result obtains and bid and ask prices converge to the (unique) Walrasian equilibrium price. Thus, in the confines of the model the Walrasian auctioneer of the market under consideration can be replaced by competing intermediaries. In addition, a multiplicity of subgame perfect Nash equilibrium emphasizes the coordination problems inherent in models of intermediation.

#### Ghysels, Eric; Lieberman, Offer

PD November 1993. TI Dynamic Regression and Filtered Data Series: A Laplace Approximation to the Effects of Filtering in Small Samples. AA Ghysels: Universite de Montreal. Lieberman: University of Bristol. SR University of Bristol Economics Working Paper: 93/368; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 16. PR no charge. JE C10, C13, C15, C22. KW Linear Filters, Seasonal Adjustment, Autoregressive Models.

AB It is common for an applied researcher to use filtered data, like seasonally adjusted series, to estimate the parameters of a dynamic regression model. In this paper, we study the effect of (linear) filters on the exact finite sample distribution of parameters of a dynamic regression model with a lagged dependent variable and a set of exogenous regressors. So far, only asymptotic results are available. Our main interest is to investigate the effect of filtering on the small sample bias and mean squared error. In general, these results entail a numerical integration of derivatives of the joint moment generating function of two quadratic forms in Normal variables. We take advantage of the Laplace approximation to the bias and MSE which substantially reduces the computational burden, as it yields relatively simple analytic expressions. We obtain an analytic formula for approximating the effect of filtering on the finite sample bias and MSE. We evaluate the adequacy of the approximations by comparison with Monte Carlo simulations, using the X-11 filter as specific example.

#### Gibbons, Robert S.

TI Getting Together and Breaking Apart: The Decline of Centralised Collective Bargaining. AU Freeman, Richard B.; Gibbons, Robert S.

TI Subjective Performance Measures in Optimal Incentive Contracts. AU Baker, George; Gibbons, Robert S.; Murphy, Kevin J.

#### Gibson, Michael S.

PD September 1993. TI Long-Term Banking Relationships in General Equilibrium. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 452; Division of International Finance, Board of Governors of the Federal Reserve System,

Washington DC 20551. PG 33. PR no charge. JE E44. KW Bank, Long Term Relationship, Contracting.

AB I examine the relationship between a financial intermediary ("bank") and a borrowing firm in a three-period overlapping generations model. The model can accommodate two financing arrangements between the bank and the firm: one requires commitment to a long-term contract, the other does not. Which arrangement is chosen depends on whether such a commitment can be credibly made. After defining the two arrangements, I compare their features with real-world financial dealings. Once the form of the long-term relationship between the bank and the firm is set, investment and output of the economy can be determined. Disruptions in financial markets can affect real investment and output by disrupting established long-term relationships.

#### Gilboa, Itzhak

PD May 1993. TI Case-Based Knowledge Representation: An Expository Note. AU Gilboa, Itzhak; Schmeidler, David. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1053; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 13. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D80, C70. KW Decision Theory, Knowledge Representation, Rule-Based Systems.

AB The representation of knowledge in terms of rules is fraught with theoretical problems, such as the justification of induction, the "right" way to do it, and the revision of knowledge in face of contradictions. In this paper we argue that the source of these problems is that we pretend to know what, in fact, cannot be known. Rather than coping with the problems that induction raises, we suggest to avoid it altogether. Instead of formulating rules which we supposedly "know", we may make do with the knowledge of actual cases from our experience. Starting from this viewpoint, we continue to derive Case-Based Decision Theory (CBDT), and propose it as less ambitious, yet less problematic theory of knowledge representation.

PD July 1993. TI Can Free Choice Be Known? AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1055; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 19. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D70, D80, C70, C72. KW Free Choice, Knowledge, Free Will, Prisoners' Dilemma, Twin Paradox.

AB In this note we reconsider an argument, borrowed from causal decision theory, according to which rational and identical players should cooperate in a one-shot prisoner's dilemma. We argue that, regardless of how one views this type of reasoning, the example points at a possible inconsistency in standard formulations of knowledge and decision. We suggest that when formalizing notions of "decisions", "choice", and "rationality", care must be taken not to assume knowledge of one's own choice. Finally, the relationships to the classical problems of causal decision theory and of determinism versus free will are briefly discussed.

**Glosten, Lawrence R.**

PD July 1993. TI On the Relation Between the Expected Value and the Volatility of the Nominal Excess Return on Stocks. AU Glosten, Lawrence R.; Jagannathan, Ravi; Runkle, David E. AA Glosten: Columbia University. Jagannathan and Runkle: University of Minnesota and Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report; 157; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 23. PR no charge. JE C40, C50, G00, G12, G14. KW GARCH-M. Seasonal Patterns. Conditional Volatility. Stock Index Retiring.

AB When the standard GARCH-M model is modified by allowing (i) seasonal patterns in volatility, (ii) positive and negative innovations to returns having different impacts on conditional volatility, and (iii) nominal interest rates to predict conditional variance, we find support for a negative relation between conditional expected monthly return and conditional expected monthly return and conditional variance of monthly return. Using the modified GARCH-M model, we also show that monthly conditional volatility may not be as persistent as was thought. Positive unanticipated returns appear to result in an upward revision of conditional volatility.

PD July 1993. TI A Contingent Claim Approach to Performance Evaluation. AU Glosten, Lawrence R.; Jagannathan, Ravi. AA Glosten: Columbia University. Jagannathan: University of Minnesota and Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis Staff Report; 159; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Ave., Minneapolis, MN 55480. PG 31. PR no charge. JE G12, G13. KW Contingent Claim. Performance Evaluation. Mutual Fund Performance.

AB We show that valuing performance is equivalent to valuing a particular contingent claim on an index portfolio. In general the form of the contingent claim is not known and must be estimated. We suggest approximating the contingent claim by a series of options. We illustrate the use of our method by evaluating the performance of 130 mutual funds during the period 1968-82. We find that the relative performance rank of a fund is rather insensitive to the choice of the index, even though the actual value of the services of the portfolio manager depends on the choice of the index.

**Greenwald, Bruce**

TI Information and Economic Efficiency. AU Arnott, Richard; Greenwald, Bruce; Stiglitz, Joseph E.

**Grilli, Vittorio**

TI The Political Economy of Capital Controls. AU Alesina, Alberto; Grilli, Vittorio; Milesi-Ferretti, Gian-Maria.

**Grossman, Gene M.**

PD November 1993. TI Endogenous Innovation in the Theory of Growth. AU Grossman, Gene M.; Helpman, Elhanan. AA Grossman: Princeton University and National Bureau of Economic Research. Helpman: Tel Aviv University. SR National Bureau of Economic Research Working Paper; 4527; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG not available. PR \$5.00. JE O30, O40. KW Investment.

Knowledge. Innovation. Growth.

AB This paper makes the case that purposive, profit-seeking investment in knowledge play a critical role in the long-run growth process. First, we review the implications of neoclassical growth theory and the more recent theories of "endogenous growth". Then we discuss the empirical evidence that bears on the modeling of long-run growth. Finally, we describe in more detail a model of growth based on endogenous technological progress and discuss the lessons that such models can teach us.

**Grossman, Herschel I.**

PD August 1993. TI The Profitability of Colonialism. AU Grossman, Herschel I.; Iyigun, Murat. AA Grossman: Brown University and National Bureau of Economic Research. Iyigun: Brown University. SR National Bureau of Economic Research Working Paper; 4420; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 14. PR \$5.00. JE P16, N40. KW Colonial Investment. Political Economy.

AB This paper develops an analytical framework for studying colonial investment from the perspective of neoclassical political economy. The distinguishing feature of colonial investment in this model is that the metropolitan government restrict the amount of investment in the colony in order to maximize the net profits earned in the colony. The model explicitly includes the threat of extralegal appropriation activities by the indigenous population in the colony. The analysis of this model identifies the conditions, where these conditions include both the technology of production and the technology of extralegal appropriation, that determine the profitability of colonialism. The analysis suggest why historically some countries but not others became colonies and why many colonies that were initially profitable subsequently become unprofitable and were abandoned. The model also has implications for the amount of investment, the allocation of resources between productive and appropriative activities, and the distribution of income in colonies.

PD October 1993. TI Population Increase, Extralegal Appropriation, and the End of Colonialism. AU Grossman, Herschel I.; Iyigun, Murat. AA Grossman: Brown University and National Bureau of Economic Research. Iyigun: Brown University. SR National Bureau of Economic Research Working Paper; 4488; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 13. PR \$5.00. JE N35, N45, N37, N47, O10. KW Population Growth. Colonial Period.

AB Between 1946 and 1976, the European powers granted independence to all of their large colonies in Africa and Southeast Asia. This paper attempts to provide an economic explanation for this remarkable ending to the era of colonialism. The main theoretical innovation is to consider the effect of population increase on the allocation of time by the indigenous population between productive and subversive activities. The analysis suggests that the increase in population during the colonial period increased the potential return to extralegal appropriation of the profits of colonial companies until the colonies became a net burden on the metropolitan governments. The analysis also suggests that there was less subversive activity in colonies in which the market for indigenous labor was monopsonized because monopsonistic employers internalized the potential negative effect of extralegal appropriation on net profits.

**Gruber, Jonathan**

PD September 1993. TI Health Insurance Availability and the Retirement Decision. AU Gruber, Jonathan; Madrian, Brigitte C. AA National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4469; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 29. PR \$5.00. JE I10, J22, I18. KW Continuation Coverage. Medicare.

AB Because individuals aged 55-64 face large and uncertain medical expenditures without the guarantee of public insurance coverage provided by Medicare, the availability of post-retirement health insurance could be an important determinant in the retirement decisions of this group. We investigate the effect of health insurance on retirement by focusing on state and federal "continuation of coverage" mandates which grant the retiree the right to continue purchasing health insurance through a previous employer for a specified number of months after leaving the firm. We exploit variation in the timing and generosity of these laws to identify the effect of the availability of continuation coverage on retirement decisions, using data on 55-64 year-old males from the Current Population Survey and the Survey of Income and Program Participation. We find a sizable and significant effect of continuation coverage on retirement.

PD September 1993. TI Limited Insurance Portability and Job Mobility: The Effects of Public Policy on Job-Lock. AU Gruber, Jonathan; Madrian, Brigitte C. AA Gruber: Massachusetts Institute of Technology and National Bureau of Economic Research. Madrian: Harvard University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4479; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 24. PR \$5.00. JE J60, J62, J63, J68, I18. KW Health Insurance. Job Turnover. Continuation Coverage.

AB The link between health insurance and the workplace in the U.S. has led to concern over the possibility of insurance-induced reductions job mobility or "job-lock". Designing health insurance reforms which retain employer-based insurance coverage but mitigate the extent of job-lock requires an understanding of the policy dimensions to which job-lock is most receptive. We study a policy of limited insurance portability which has been adopted by a number of states and the federal government over the last 20 years. These "continuation of coverage" mandates grant individuals the right to continue purchasing health insurance through their former employers for some period of time after leaving their jobs. We find that the passage of these mandates caused a significant increase in the job mobility of prime age male workers. This suggests that a sizable share of job-lock arises from short run concerns over portability rather than from long run problems.

**Hahn, Robert W.**

TI Trading in Greenhouse Permits: A Critical Examination of Design and Implementation Issues. AU Stavins, Robert N.; Hahn, Robert W.

**Haldrup, Niels**

PD November 1993. TI Polynomially Cointegrated Systems and Their Representations; A Synthesis. AU Haldrup, Niels; Salmon, Mark. AA Haldrup: European University Institute and University of Aarhus. Salmon:

European University Institute. SR Aarhus Institute of Economics Memo: 1993-22; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. PG 27. PR no charge. JE C32, C51, C10. KW Polynomial Cointegration. Error Correction. Common Trends.

AB This paper presents a discussion of polynomial cointegration and a synthesis of various ways generalized cointegrated systems for a multivariate time series process may be represented. Using the Smith-McMillan canonical form of a rational polynomial matrix we describe the null-space structure of higher order - and in particular I(2) - cointegrated systems and we show how different representations such as the error correction model, the common stochastic trends model and various triangular array decompositions, can be derived within this unifying framework. Hence we extend the results of Hylleberg and Mizon (1989) to more general systems. The different representations provide different insights into distinct features of multivariate systems that may simultaneously contain several types of equilibrium behavior.

TI Money Demand, Expectations, and the Forward-Looking Model: A Comment. AU Engsted, Tom; Haldrup, Niels.

**Haltiwanger, John**

TI Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts. AU Davis, Steven J.; Haltiwanger, John; Schuh, Scott.

**Hamilton, Gary G.**

TI Market Structure and International Trade: Business Groups in East Asia. AU Feenstra, Robert C.; Yang, Tzu-Han; Hamilton, Gary G.

**Hammermesh, Daniel S.**

PD November 1993. TI Beauty and the Labour Market. AU Hammermesh, Daniel S.; Biddle, Jeff E. AA Hammermesh: University of Texas and National Bureau of Economic Research. Biddle: Michigan State University. SR National Bureau of Economic Research Working Paper: 4518; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE J70, J31. KW Earnings Differentials. Appearance.

AB We develop a theory of sorting across occupations based on looks and derive its implications for testing for the source of earnings differentials related to looks. These differentials are examined using the 1977 Quality of Employment, the 1971 Quality of American Life, and the 1981 Canadian Quality of Life surveys, all of which contain interviewers' ratings of the respondents' physical appearance. Holding constant demographic and labor-market characteristics, plain people earn less than people of average looks, who earn less than the good-looking. The penalty for plainness is 5 to 10 percent, slightly larger than the premium for beauty. The effects are slightly larger for men than women; but unattractive women are less likely than others to participate in the labor force and are more likely to be married to men with unexpectedly low human capital. Better-looking people sort into occupations where beauty is likely to be more productive but the impact of individuals' looks on their earnings is mostly independent of occupation.

**Hammond, Peter J.**

PD July 1993. TI History as a Widespread Externality in Some Arrow-Debreu Market Games. AA Stanford University and University of Bristol. SR University of Bristol Economics Working Paper: 93/356; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 36. PR no charge. JE D51, D61, D62. KW General Equilibrium. Welfare Theorems. Time Inconsistency.

AB Two Arrow-Debreu market games are formulated whose straightforward Nash equilibria are Walrasian. Both have an auctioneer setting prices to maximize net sales value. In the second an additional redistributive agency maximizes welfare through optimal lump-sum transfers. In intertemporal economies, however, subgame imperfections can arise because agents understand how current decisions such as those determining investment influence either future prices (with finitely many agents), or future redistribution (even in continuum economies). The latter observation undermines the second efficiency theorem of welfare economics. Indeed, when the state of the economy affects future policy, it functions like a "widespread externality".

**Hannan, Timot**

PD August 1993. TI Bank Commercial Lending and the Influence of Thrift Competition. AU Hannan, Timot; Liang, Nellie J. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-39; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 14. PR no charge. JE G21, D40. KW Commercial Loans. Market Concentration. Loan Rates.

AB The competitive influence of thrift institutions on the pricing of commercial loans made by commercial banks is assessed in this paper. Using detailed survey information on the rates that individual banks charge for various types of commercial loans, we attempt to determine which of various proposed weightings of thrift institutions, when incorporated in measures of market concentration, best explains loan rates. After considering several weighting schemes, including those designed to approximate current regulatory practice in analyzing the competitive impact of proposed bank mergers, we find no evidence that the inclusion of thrift institutions better explains bank lending rates than does the complete exclusion of thrifts.

**Hassett, Kevin A.**

TI Who Pays Broad-Based Energy Taxes? Computing Lifetime and Regional Incidence. AU Bull, Nicholas; Hassett, Kevin A.; Metcalf, Gilbert E.

**Heal, Geoffrey**

TI Who Should Abate Carbon Emissions? An International Viewpoint. AU Chichilnisky, Graciela; Heal, Geoffrey.

TI Sustainable Growth and the Green Golden Rule. AU Beltratti, Andrea; Chichilnisky, Graciela; Heal, Geoffrey.

**Heckman, James**

PD August 1993. TI Assessing Clinton's Program on Job Training, Workfare, and Education in the Workplace. AA University of Chicago and National Bureau of Economic

Research. SR National Bureau of Economic Research Working Paper: 4428; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 26. PR \$5.00. JE I20, I28, J23. KW Job Training. Training. Labor Market. Education. Clinton's Agenda.

AB The Clinton administration has made job training and skill upgrading a major priority. Secretary of Labor Robert Reich has already presented a bold program for skill enhancement drawing on a new consensus in certain circles of the social science and policy communities about the need to upgrade the nation's skills. An apparently new approach to training and education has been proposed and Secretary Reich is now busy selling it to the Congress and the Nation. This paper provides background on the problems in the labor market that motivate the new Clinton-Reich initiatives on training and schooling. It briefly summarizes the proposed strategies and the background philosophy for the Clinton-Reich agenda. It then considers the evidence that supports or contradicts assumptions of their plan. There is a lot of evidence about many of the "new" proposals because some are reworked versions of old programs that have been carefully evaluated. Other proposals borrow ideas from Germany. I compare the rhetoric that accompanies these proposals in the context of the U.S. labor market. Still other proposals have been evaluated in demonstration projects but the lessons from these evaluations have not yet influenced administration thinking. This is unfortunate because many current plans are based on assumptions that have been discredited in careful empirical studies. This research has not yet caught the attention of the policy makers in Washington.

**Helpman, Elhanan**

TI Endogenous Innovation in the Theory of Growth. AU Grossman, Gene M.; Helpman, Elhanan.

**Henderson, Rebecca**

PD September 1993. TI Scale, Scope and Spillovers: The Determinants of Research Productivity in the Pharmaceutical Industry. AU Henderson, Rebecca; Cockburn, Iain. AA Henderson: Massachusetts Institute of Technology and National Bureau of Economic Research. Cockburn: University of British Columbia and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4466; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 33. PR \$5.00. JE O31, L65. KW Increasing Returns. R&D.

AB This paper presents the results of a study of the determinants of research productivity in the pharmaceutical industry. Using disaggregated, internal firm data at the research program level from ten major pharmaceutical companies, we find no evidence of increasing returns to scale at either the firm or the research program level. However our results suggest that there are three benefits to running research programs within the context of larger and more diversified R&D efforts: economies of scale arising from sharing fixed costs; economies of scope arising from the opportunity to exploit knowledge across program boundaries within the firm; and the enhanced ability to absorb internal and external spillovers. We also find that spillovers between firms may play a major role in increasing research productivity. The paper also speaks directly to the question of firm heterogeneity.

**Hines, James R., Jr**

PD June 1993. TI From Each According to His Surplus:



Equi-Proportionate Sharing of Commodity Tax Burdens. AU Hines, James R., Jr.; Hlinko, John C.; Lubke, Theodore, J. F. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-12; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 17. PR \$5.00. JE H20, H22. KW Commodity Taxes. Consumer Surplus. Producer Surplus. Market Surplus.

AB This paper examines the incidence of commodity taxes, finding that, when demand and marginal cost schedules are linear, the burden of commodity is distributed between buyers and sellers so that each suffers the same percentage reduction in pre-tax surplus. This equi-proportionate reduction in surplus is the outcome of commodity taxes set at any rate, and is unaffected by relative demand and supply elasticities. Hence, when demand and marginal cost schedules are linear, commodity taxes resemble flat-rate taxes imposed on market surplus. Similar results apply to nonlinear schedules within certain ranges.

PD June 1993. TI Altered States: Taxes and the Location of Foreign Direct Investment in America. AA National Bureau of Economic Research and Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-17. ; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 28. PR \$5.00. JE F21, H71. KW Foreign Investment. Foreign Tax Credits. State Taxes.

AB This paper examines the effect of taxation of foreign investment and on business location within the United States. The idea is to compare the inter-state distribution of investment from certain foreign countries (those with foreign tax credit systems) with the distribution of investments from other countries. Investors from countries with foreign tax credit systems receive home-country tax credits for income taxes paid to US states, so they are less likely than other investors to avoid investing in high-tax states. The results indicate that 1% differences in state corporate tax rates are associated with 7-9% differences between the investment shares of foreign tax credit investors and the investment shares of all others, suggesting that state taxes significantly influence the pattern of foreign direct investment in the U.S.

#### Hlinko, John C.

TI From Each According to His Surplus: Equi-Proportionate Sharing of Commodity Tax Burdens. AU Hines, James R., Jr.; Hlinko, John C.; Lubke, Theodore, J. F.

#### Holly, Alberto

PD June 1993. TI An Asymptotic Expansion for the Distribution of Test Criteria Which are Asymptotically Distributed as Chi-Squared Under Contiguous Alternatives. AU Holly, Alberto; Gardiol, Lucien. AA Universite de Lausanne. SR Universite de Lausanne, Cahiers de Recherches economiques: 9308; Departement d'econometrie et d'economie politique, Univerite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne, SWITZERLAND. PG 18. PR no charge. JE C12, C20. KW Edgeworth Expansions. Multivariate Hermite Polynomials.

AB The purpose of this paper is to derive explicit general Edgeworth expansions formulae to compute the asymptotic local power up to order  $\alpha(1/T)$  where  $T$  is the sample size, for test sequences which are asymptotically distributed as noncentral chi-squared distributions under contiguous

alternatives. The derivation of the Edgeworth expansion is based on the multivariate versions of formulae for moments, cumulants and Hermite polynomials in tensor power notation obtained in this paper. Part of the algebraic computation involved has been performed with Mathematica. Upon specialization, the results represented in this paper could be applied to compute the asymptotic local power up to order  $\alpha(1/T)$ , under contiguous alternatives, of the likelihood ratio, Wald and Rao's efficient score (or LM) statistics.

#### Holtz-Eakin, Douglas

PD October 1993. TI Sticking it Out: Entrepreneurial Survival and Liquidity Constraints. AU Holtz-Eakin, Douglas; Joulfaian, David; Rosen, Harvey S. AA Holtz-Eakin: Syracuse University and National Bureau of Economic Research. Joulfaian: U.S. Department of Treasury. Rosen: Princeton University. SR National Bureau of Economic Research Working Paper: 4494; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 23. PR \$5.00. JE G32, D92. KW Entrepreneurs. Capital Availability. Liquidity.

AB We examine why some individuals survive as entrepreneurs and others do not. In addition, we analyze the growth of entrepreneurial enterprises, conditional on surviving. Our focus is on the role of access to capital -- to what extent do liquidity constraints increase the likelihood of entrepreneurial failure? The empirical strategy is based on the following logic: If entrepreneurs cannot borrow to attain their profit-maximizing levels of capital, then those entrepreneurs who have substantial personal financial resources will be more successful than those who do not. The data consist of the 1981 and 1985 federal individual income tax returns of a group of people who received inheritances. These data allow us to identify those individuals who were sole proprietors in 1981, and to determine the extent to which the decision to remain a sole proprietor was influenced by the magnitude of the inheritance-induced increase in liquidity. The results are consistent with the notion that liquidity constraints exert a noticeable influence on the viability of entrepreneurial enterprises. For example, a \$150,000 inheritance increases the probability that an individual will continue as a sole proprietor by 1.3 percentage points, and conditional on surviving, the receipts of the enterprise increase by almost 20 percent.

PD November 1993. TI Entrepreneurial Decisions and Liquidity Constraints. AU Holtz-Eakin, Douglas; Joulfaian, David; Rosen, Harvey S. AA Holtz-Eakin: Syracuse University and National Bureau of Economic Research. Joulfaian: U.S. Treasury. Rosen: Princeton University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4526; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 20. PR \$5.00. JE G30, G32. KW Liquidity Constraints. Entrepreneurship.

AB This paper analyzes the role of liquidity constraints in the formation of new entrepreneurial enterprises. The basic empirical strategy is to determine whether an individual's wealth affects the probability of becoming an entrepreneur, and the conditional amounts of depreciable assets, ceteris paribus. If so, liquidity constraints are likely to be present. To be successful, such a research strategy requires a measure of asset variation that is both precisely measured and exogenous to the entrepreneurial decision. Our data are uniquely well-suited for this purpose. The sample consists of the 1981 and 1985 federal

income tax returns of a group of people who received inheritances in 1982 and 1983, along with information on the size of those inheritances from a matched set of estate tax returns. Hence, we can examine how the exogenous receipt of capital affects the decision to become an entrepreneur and important financial characteristics of new enterprises. Our results suggest that the size of the inheritance has a substantial effect on the probability of becoming an entrepreneur, and that conditional on becoming an entrepreneur, the size of the inheritance has a statistically significant and quantitatively important effect on the amount of capital employed. These findings are consistent with the presence of liquidity constraints.

#### Hoshi, Takeo

PD August 1993. TI The Choice Between Public and Private Debt: An Analysis of Post-Deregulation Corporate Financing in Japan. AU Hoshi, Takeo; Scharfstein, David; Kashyap, Anil K. AA Hoshi: University of California, San Diego. Scharfstein: Massachusetts Institute of Technology and National Bureau of Economic Research. Kashyap: University of Chicago and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4421; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 30. PR \$5.00. JE G32, O53, G21, G30. KW Deregulation. Debt Financing. Japan.

AB As a result of deregulation, there was a dramatic shift during the 1980's in Japan away from bank debt financing towards public debt financing: in 1975, more than 90% of the corporate debt of public companies was bank debt; in 1992 it was less than 50%. This paper presents a theory of the choice between bank debt and public debt and then examines the theory using firm-level data on borrowing sources in Japan. We find that high net worth companies are more prone to use public debt. We also find that the more successful owner-managed firms tended to access the public debt markets. We offer a number of interpretations of these results in light of the theory.

#### Huang, Guobo

TI An Error Correction Model for the Demand for International Reserves: The Cases of Brazil and Venezuela. AU Dickinson, David G.; Ford, J. L.; Huang, Guobo.

TI The Demand for International Reserves in China: An ECM Model with Domestic Monetary Disequilibrium. AU Ford, J. L.; Huang, Guobo.

#### Hubbard, R. Glenn

PD November 1993. TI The Importance of Precautionary Motives in Explaining Individual and Aggregate Saving. AU Hubbard, R. Glenn; Skinner, Jonathan; Zeldes, Stephen P. AA Hubbard: Columbia University and National Bureau of Economic Research. Skinner: University of Virginia and National Bureau of Economic Research. Zeldes: University of Pennsylvania and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4516; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 47. PR \$5.00. JE E21, D91. KW Saving. Life-Cycle Model.

AB This paper examines predictions of a life-cycle simulation model--in which individuals face uncertainty regarding their length of life, earnings, and out-of-pocket

medical expenditures, and imperfect insurance and lending markets--for individual and aggregate wealth accumulation. Relative to life-cycle or buffer-stock alternatives, our augmented life-cycle model better matches a variety of features of U.S. data, including: (1) aggregate wealth, (2) cross-sectional differences in wealth-age and consumption-age profiles by education group, and (3) short-run time-series movements of consumption and income.

#### Hughes, Alan

TI Size, Financial Structure and Profitability: UK Companies in the 1980's. AU Cosh, A. D.; Hughes, Alan.

TI Acquisition Activity in the Small Business Sector. AU Cosh, A. D.; Hughes, Alan.

#### Hughson, Eric

TI Splitting Orders. AU Bernhardt, Dan; Hughson, Eric.

#### Humphrey, David B.

TI Do Consumers Pay for One-Stop Banking? Evidence from a Non-Standard Revenue Function. AU Pulley, Lawrence B.; Berger, Allen N.; Humphrey, David B.

#### Hurd, Michael D.

PD September 1993. TI The Effect of Labor Market Rigidities on the Labor Force Behavior of Older Workers. AA State University of New York at Stony Brook and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4462; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 53. PR \$5.00. JE J22, J14. KW Retirement. Labor Supply. Business Practices.

AB Most older workers retire completely from full-time work with no intervening spell of part-time. This is incompatible with a model of retirement in which tastes for work gradually shift with age toward leisure and hours may be freely chosen. A survey of institutional arrangements such as pensions and Social Security and of normal business practices resulting from fixed costs of employment and team production leads to the conclusion that most workers face rather limited choices consisting of a high-paying year-round job and low-paying part-time work. Therefore, someone approaching retirement who wants to retire gradually from a career-type job will have to change jobs, losing job-related skills, and to compete for low-paying, easy-entry jobs. Faced with that option most retire completely.

#### Hylleberg, Svend

TI Testing for Insider-Outsider Effects. AU Andersen, Torben M.; Hylleberg, Svend.

#### Illarionov, Andrei

PD August 1993. TI The Conditions of Life. AU Illarionov, Andrei; Layard, Richard; Orszag, Peter. AA Illarionov: Working Center for Economic Reform, Russia. Layard and Orszag: London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 165; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 22. PR no charge. JE D31, P47, I31. KW Economic Transition. Russia. Quality of Life.

**AB** The Western media often depict the average Russian as starving and destitute. This is of course absurd. But hardship has increased since the reform for a substantial portion of the population. Average living standards have fallen and inequality has increased. How much? We begin by documenting the changes as accurately as possible, showing what is true and what is exaggerated. In Part 2, we ask why it has happened. Why have real wages fallen and why has wage dispersion increased? We find that economic forces explain much of the story. And how have pensions and family benefits adjusted? The social safety net, though well-organized, has left many large families poor. The problem of poor children is much more serious than the problem of poor pensioners. In Part 3, we look at unemployment - tomorrow's economic and social problem. We note how inflation has eroded the value of unemployment benefits and also outline an appropriate employment policy framework to cope with the unemployment problem as it unfolds. Finally, in Part 4, we look at the rise in regional inequality.

#### Issler, Joao Victor

**TI** Estimating Sectoral Cycles Using Cointegration and Common Features. **AU** Engle, Robert F.; Issler, Joao Victor.

#### Iyigun, Murat

**TI** The Profitability of Colonialism. **AU** Grossman, Herschel I.; Iyigun, Murat.

**TI** Population Increase, Extralegal Appropriation, and the End of Colonialism. **AU** Grossman, Herschel I.; Iyigun, Murat.

#### Jackman, Richard

**PD** June 1993. **TI** Mass Unemployment: International Experience and Lessons for Policy. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 152; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 14. **PR** no charge. **JE** E24, E61, E62, E63. **KW** Fiscal Policy. Unemployment.

**AB** While variations across countries in the experience of mass unemployment have been extensively analyzed, the even more striking variation over time is much less well understood. This paper argues that the capacity of a nation to maintain full employment by means of "Keynesian" fiscal and monetary policies is constrained no longer so much by they need to contain inflationary pressures (where the wage setting arrangements of corporatist countries are an advantage) as by the growth of international trade and capital mobility. It is argued that traditional corporatist institutions are not well-suited to these developments.

#### Jaffe, Adam B.

**PD** April 1993. **TI** Oversight of Regulated Utilities' Fuel Supply Contracts: Achieving Maximum Benefit From Competitive Natural Gas and Emission Allowance Markets. **AU** Jaffe, Adam B.; Kalt, Joseph P. **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-22; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. **PG** 38. **PR** \$5.00. **JE** Q20, Q28, L95. **KW** Utilities. Oversight. Regulation.

**AB** An ongoing policy revolution is challenging the oversight capacities of the Public Utility Commissions (PUC's) that regulated the nation's gas and electric utilities. Deregulation and more light-handed regulation in upstream production and transportation markets have resulted in greatly increased contractual complexity among industry participants, prices that are more reflective of supply and demand forces, and a burst of new product offerings and industry participants. In the electric power sector, wholly new markets have been created -- as the Clean Air Act Amendments of 1990 establish a system of tradeable sulfur emission allowances. How should PUC's go about ensuring the prudence of local utilities' fuel and emission allowance struck in highly complex and dynamic markets? This study examines the economic forces of risk and regulation that influence the structure of utilities' fuel and allowance contracts. Prudence standards being considered in some jurisdictions would subject such contracts to ex post "no more than spot" rules, permitting utility recovery of no more than spot market measures of fuel and allowance costs. Approaches of this type would tend to distort and/or destroy efficient long-term contractual forms and would raise the social costs of electricity, gas, and pollution control. Prudence standards based on pre-approval of the mix of utilities' contract portfolios short- and long-term price and volume dimensions, coupled with competitive procurement systems for the individual components of contract portfolios, are likely to produce better results.

**PD** May 1993. **TI** Incentive Regulation for Natural Gas Pipelines. **AU** Jaffe, Adam B.; Kalt, Joseph P. **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-19; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. **PG** 39. **PR** \$5.00. **JE** L50, L95. **KW** Natural Gas. Ratemaking. Gas Transportation.

**AB** Natural gas pipelines in the United States have been undergoing a process of extensive regulatory change over the last decade. Public policy has moved toward fostering competition and expanded reliance on the marketplace as protectors of the public's interest in an efficient transportation system for gas supplies. Under such policies, traditional principles of pipeline ratemaking are increasingly anachronistic. These public utility principles, as applied by regulators, base maximum pipeline prices on historic embedded costs and allowed rates of return to those costs. To the extent that such ratemaking more or less guarantees cost recovery, incentives for efficient pipeline operations are blunted. Moreover, simple rate designs that follows from traditional embedded cost ratemaking provide for only two "flavors" of pipeline offerings with varying degrees of firmness are discouraged. This study analyzes alternatives to traditional ratemaking for natural gas pipelines. So-called "incentive regulation" approaches offer the potential for improvement in the performance of the pipeline industry. Incentive ratemaking (IRM) severs the strict tie between a company's regulated firm's prices to external reference points such as a general inflation index, a constructed measure of "stand alone costs," or an index of other firms' costs. We find that the latter alternative -- a "yardstick" measure of other pipelines' costs - provides a workable form of IRM for the pipeline industry.

**PD** July 1993. **TI** The Energy Paradox and the Diffusion of Conservation and Technology. **AU** Jaffe, Adam B.; Stavins, Robert N. **AA** Harvard University and National Bureau of Economic Research. **SR** Harvard John F.

Kennedy School of Government Faculty Research Working Paper: R93-23; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 36. PR \$5.00. JE Q40. KW Energy Conservation. Technology Diffusion.

AB We develop a framework for thinking about the "paradox" of very gradual diffusion of apparently cost-effective energy-conservation technologies. Our analysis provides some keys to understanding why this technology-diffusion process is gradual, and focuses attention on the factors that cause this to be the case, including those associated with potential market failures -- information problems, principal/agent slippage, and unobserved costs -- and those explanations that do not represent market failures -- private information costs, high discount rates, and heterogeneity among potential adopters. Additionally, our analysis indicates how alternative policy instruments--both economic incentives and direct regulations -- can hasten the diffusion of energy-conserving technologies.

#### Jagannathan, Ravi

TI On the Relation Between the Expected Value and the Volatility of the Nominal Excess Return on Stocks. AU Glosten, Lawrence R.; Jagannathan, Ravi; Runkle, David E.

TI A Contingent Claim Approach to Performance Evaluation. AU Glosten, Lawrence R.; Jagannathan, Ravi.

#### Jennergren, L. Peter

TI Currency Option Pricing in Credible Target Zones. AU Dumas, Bernard; Jennergren, L. Peter; Naslund, Bertil.

#### Jones, Larry E.

PD November 1993. TI Growth and the Effect of Inflation. AU Jones, Larry E.; Manuelli, Rodolfo E. AA Jones: Northwestern University and National Bureau of Economic Research. Manuelli: University of Wisconsin and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4523; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 38. PR \$5.00. JE E31, O40, O42, O47. KW Inflation. Economic Growth. Welfare Costs.

AB In this paper, we analyze the effects of change in monetary growth rates in the context of models of endogenous growth when the demand for money comes from a cash-in-advance constraint. We explore two alternative avenues through which the rate of inflation could affect the overall long-run rate of growth of the economy. The first of these is through nominal rigidities in the tax code. The particular rigidity that we examine is for depreciation allowances that are fixed in nominal terms. The second avenue that we examine is a distortion of the labor-leisure choice when a Lucas-style model of effective labor is used. In both cases, the welfare costs and growth effects of various monetary growth rules relative to a constant money supply are studied. It is found that both the welfare costs of inflation and its growth effects are quite small at low to moderate levels of inflation. However, at rates of inflation that are high by U.S. standards but not uncommon in developing countries, the magnitude of both the growth effects and the welfare costs of inflation depend on the specification of the model. If cash and credit goods are substitutes there are no growth effects and moderate welfare effects. If the two goods are complements there are sizable growth effects and large welfare effects.

PD November 1993. TI On the Optimal Taxation of Capital Income. AU Jones, Larry E.; Manuelli, Rodolfo E.; Rossi, Peter E. AA Jones: Northwestern University and National Bureau of Economic Research. Manuelli: University of Wisconsin and National Bureau of Economic Research. Rossi: University of Chicago. SR National Bureau of Economic Research Working Paper: 4525; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 33. PR \$5.00. JE H20, H21. KW Optimal Tax Rate. Capital.

AB One of the best known results in modern public finance is the Chamley-Judd result showing that the optimal tax rate on capital income is zero in the long-run. In this paper, we reexamine this result by analyzing a series of generalizations of the Chamley-Judd formulation. We show that in a model with human capital, if the tax code is sufficiently rich and there are no profits from accumulating human capital, then all distorting taxes are zero in the long-run under the optimal plan. In this sense, income from physical capital is not special. To gain a better understanding of these two conditions, we study examples in which they are not satisfied and show that the optimal tax rate on income from physical capital does not go to zero. In those cases where the limiting tax rate is non-zero, we calculate its value for alternative specifications tax rates of 10% and higher are possible under the optimal code.

#### Jorgensen, Bjorn N.

PD August 1993. TI An Arbitrage Free Trilateral Target Zone Model. AU Jorgensen, Bjorn N.; Mikkelsen, Hans Ole. AA Jorgensen: Northwestern University. Mikkelsen: University of Aarhus. SR Aarhus Institute of Economics Memo: 1993-17; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. PG 14. PR no charge. JE F31, F33, C15, G15. KW Exchange Rates. Target Zones. Multilateral Model. AB This paper proposes an arbitrage free trilateral model of a credible target zone regime with bands on each bilateral exchange rate. The no arbitrage condition reduces the system to only two dimensions. Any two rates must obey their own boundaries but, in addition, the free rein for movements is restricted by the band of the redundant rate. Therefore, target zone models defined in a bilateral setting do not apply to general systems with a cobweb of bilateral bands, such as the European Monetary System. Since the model has no known analytical solution it is estimated by the method of simulated moments.

#### Jost, Peter J.

TI Quacks, Lemons and Self Regulation: A Welfare Analysis. AU Gehrig, Thomas P.; Jost, Peter J.

#### Joulfaian, David

TI Sticking it Out: Entrepreneurial Survival and Liquidity Constraints. AU Holtz-Eakin, Douglas; Joulfaian, David; Rosen, Harvey S.

TI Entrepreneurial Decisions and Liquidity Constraints. AU Holtz-Eakin, Douglas; Joulfaian, David; Rosen, Harvey S.

#### Jovanovic, Boyan

PD September 1993. TI Competitive Diffusion. AU Jovanovic, Boyan; MacDonald, Glenn. AA Jovanovic:

New York University and National Bureau of Economic Research. MacDonald: University of Rochester. SR National Bureau of Economic Research Working Paper: 4463; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 23. PR \$5.00. JE O31, O33. KW Information Barriers. Vintage Capital. Innovation.

AB The usual explanation for why the producers of a given product use different technologies involves "vintage-capital": A firm understands the frontier technology, but can still prefer an older, less efficient technology in which it has made specific physical and human capital investments. This paper develops an alternative, "information-barrier" hypothesis: Firms differ in the technologies they use because it is costly for them to overcome the informational barriers that separate them. The paper endogenizes both innovative and imitative effort. The industry life-cycle implications - declining price and increasing output - broadly agree with the Gort-Klepper data. Empirically, the paper focuses on the slow spread of Diesel locomotives, which can not be explained by the vintage-capital hypothesis alone. For instance, contrary to that hypothesis, railroads were buying new steam locomotives long after the Diesel first came into use - exactly as the information-barrier hypothesis would imply.

#### Just, Marion R.

TI Character Issues and Performance: Discourse in the 1992 Presidential Campaign. AU Crigler, Ann N.; Just, Marion R.; Cook, Timothy E.

#### Kalt, Joseph P.

TI Culture as Explanation in Racial and Ethnic Inequality: American Indians, Reservation Poverty, and Collective Action. AU Cornell, Stephen; Kalt, Joseph P.

TI Oversight of Regulated Utilities' Fuel Supply Contracts: Achieving Maximum Benefit From Competitive Natural Gas and Emission Allowance Markets. AU Jaffe, Adam B.; Kalt, Joseph P.

TI Incentive Regulation for Natural Gas Pipelines. AU Jaffe, Adam B.; Kalt, Joseph P.

TI Where Does Economic Development Really Come From? Constitutional Rule Among the Modern Sioux and Apache. AU Cornell, Stephen; Kalt, Joseph P.

#### Kaminsky, Graciela L.

PD September 1993. TI High Real Interest Rates in the Aftermath of Disinflation: Actual or Expected? AU Kaminsky, Graciela L.; Leiderman, Leonardo. AA Kaminsky: Board of Governors of the Federal Reserve System. Leiderman: Tel Aviv University. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-33; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 11. PR no charge. JE E31, E43, E44. KW Inflation. Stabilization Programs. Peso Problem.

AB High actual real interest rates are a stylized fact typically observed for several months after the adoption of disinflation programs. Although one possible explanation for this stylized fact is that high realized real interest rates reflect primarily a liquidity crunch, another possibility is that high ex-post real interest rates are explained in terms of the existence of an ex-post error in inflation expectations which reflects lack of

credibility of the low-inflation policy. This hypothesis is tested in this paper using data for four previously chronic-inflation countries: Argentina, Brazil, Israel, and Mexico.

#### Kane, Alex

TI Index-Option Pricing with Stochastic Volatility and the Value of Accurate Variance Forecasts. AU Engle, Robert F.; Kane, Alex; Noh, Jaesun.

TI A Test of Efficiency for the S&P 500 Index Option Market Using Variance Forecasts. AU Engle, Robert F.; Kane, Alex; Noh, Jaesun.

#### Kaplan, Steven N.

PD August 1993. TI Top Executives, Turnover and Firm Performance in Germany. AA University of Chicago. SR National Bureau of Economic Research Working Paper: 4416; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 17. PR \$5.00. JE L21, M10, G30. KW Executive Turnover. Management. Earnings.

AB This paper examines executive turnover -- both for management and supervisory boards - and its relation to firm performance in the largest companies in Germany in the 1980's. The management board turns over slowly -- at a rate of 10% per year -- implying that top executives in Germany have longer tenures than their counterparts in the U.S. and Japan. Turnover of the management board increases significantly with stock performance and particularly poor (i.e. negative) earnings, but is unrelated to sales growth and earnings growth. Turnover of the supervisory board is not consistently related to any measure of performance.

#### Karshenas, M.

PD March 1993. TI Exchange Rate Unification, the Role of Markets and Planning in the Iranian Economic Reconstruction. AU Karshenas, M.; Pesaran, M. Hashem. AA Karshenas: University of London. Pesaran: University of Cambridge and University of California, Los Angeles. SR University of Cambridge Department of Applied Economics Working Paper: 9313; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 27. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE O53, P11, O11, F31. KW Oil Exporting Countries. Iran.

AB This paper is concerned with the respective roles of market and planning in an oil economy such as Iran where the government is in control of the most important source of national wealth. The paper first briefly reviews the theoretical considerations bearing on the problem and distinguishes between central planning in a command economy, indicative planning and market economies. It then discusses the problems of transition out of the controlled war economy in Iran and examines the respective roles of planning and markets in economic reconstruction and the long term development of the Iranian economy. In particular, it reviews the measures that have recently been taken towards rationalization of the exchange rate system in Iran and discusses a number of complementary economic and non-economic policies that need to be implemented for the unification policies to have sustainable effects in the long run.

**Kashyap, Anil K.**

TI The Choice Between Public and Private Debt: An Analysis of Post-Deregulation Corporate Financing in Japan. AU Hoshi, Takeo; Scharfstein, David; Kashyap, Anil K.

**Katz, Lawrence F.**

TI An Evaluation of Recent Evidence of the Employment Effects of Minimum and Subminimum Wages. AU Card, David; Katz, Lawrence F.; Krueger, Alan B.

**Keeble, David**

PD July 1993. TI Small Firm Creation and Growth, Regional Development and the North-South Divide. AU Keeble, David; Bryson, John. AA Keeble: University of Cambridge. Bryson: University College of Wales, Aberystwyth. SR University of Cambridge Small Business Research Centre Working Paper: 29; Department of Economics, University of Cambridge, Sidgwick Avenue, CB3 9DE Cambridge, UNITED KINGDOM. PG 22. PR \$10.00 (L5.00), checks payable to University of Cambridge. JE D21, L84, L86, L11. KW Small Service Firms. Regional Economic Development. Firm Creation.

AB This paper analyses in detail regional variations in the characteristics, performance and growth of small and medium-sized manufacturing and business service enterprises in Britain, with particular reference to their impact on the "North South Divide" in British regional economic development. It is based on the Cambridge University Small Business Research Centre's unique 1991 national survey of nearly 2,000 such businesses. It shows that there are significant regional differences between enterprise employment and turnover growth rates, levels of product market specialization, innovation rates, levels of R&D activity, occupational/skills structures, and the reported incidence of skill shortages. There are also differences in frequency of use of government advisory agencies, and the rating by firms in different regions of key competitive advantages and constraints on growth.

**Keen, Michael**

TI Evasion and Time Consistency in the Taxation of Capital Income. AU Boadway, Robin W.; Keen, Michael.

**Kehoe, Patrick J.**

TI Optimal Fiscal and Monetary Policy: Some Recent Results. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

TI Social Insurance and Transition. AU Atkeson, Andrew; Kehoe, Patrick J.

TI Optimality of the Friedman Rule in Economies With Distorting Taxes. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

TI Optimal Fiscal Policy in a Business Cycle Model. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

TI Industry Evolution and Transition: The Role of Information Capital. AU Atkeson, Andrew; Kehoe, Patrick J.

TI Optimal Fiscal Policy in A Business Cycle Model. AU Chari, V. V.; Christiano, Lawrence J.; Kehoe, Patrick J.

TI International Business Cycles: Theory and Evidence. AU Backus, David K.; Kehoe, Patrick J.; Kydland, Finn E.

**Kelsey, David**

PD August 1990. TI The Arbitrage Pricing Theorem with Non-Expected Utility Preferences. AU Kelsey, David; Milne, Frank. AA Kelsey: Australian National University and University of Birmingham. Milne: Queens University. SR University of Birmingham Department of Economics Discussion Paper: 91-16; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 22. PR 2 pounds. JE D81, G12. KW Arbitrage Pricing Theorem. Asset Pricing. Machina Preferences.

AB The arbitrage pricing theorem of finance shows that in certain circumstances the price of a financial asset may be written as a linear combination of the prices of certain market factors. This result is usually proved with von Neumann-Morgenstern preferences. In this paper we show that the result is robust in the sense that it will remain true if certain kinds of non expected utility preferences are used. We consider Machina preferences, the rank dependent model and non-additive subjective probabilities.

PD April 1991. TI Choice Under Partial Uncertainty. AA University of Birmingham and Australian National University. SR University of Birmingham Department of Economics Discussion Paper: 91-19; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 15. PR 2 pounds. JE D81. KW Choice Under Uncertainty. Decision Rule. Sure Thing Principle.

AB This paper analyzes problems of choice under uncertainty where a decision maker does not use subjective probabilities. A decision maker has to choose between actions, the payoff of which depends upon the state of nature. He has a set of beliefs about which states are more likely than others, but his beliefs cannot be represented as subjective probabilities. We show that there are three main kinds of decision rule which are possible in this framework. These are maximin-type, maximax-type and choosing that action which gives the highest payoff in the state which the decision maker believes to be most likely. Unlike previous articles in this area we do not need to assume a "merger of states" axiom. Instead our analysis uses a version of the sure-thing principle.

PD May 1991. TI Theories of Choice Under Ignorance and Uncertainty. AU Kelsey, David; Quiggin, J. AA Kelsey: University of Birmingham and Australian National University. Quiggin: University of Maryland and Australian National University. SR University of Birmingham Department of Economics Discussion Paper: 91-17; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 21. PR 2 pounds. JE D81. KW Choice Under Uncertainty. Decision Theory.

AB In this paper, Knight's distinction between risk and uncertainty, and its significance for economic analysis are examined. The paper consists of a survey of some recent developments on the theory of choice under uncertainty and some applications of these theories to problems for which Bayesian Decision Theory has not proved entirely satisfactory. Two problems are examined in detail. The first is that of finance and insurance and the second is that of risk-taking behavior with special emphasis on lotteries.

PD June 1991. TI Risk and Risk Aversion for State-Dependent Utility. AA University of Birmingham and

Australian National University. SR University of Birmingham Department of Economics Discussion Paper: 91-20; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 6. PR 2 pounds. JE D81. KW Choice Under Uncertainty, Risk Aversion.

AB This paper analyzes risk and risk aversion in the state-dependent utility model, which is useful for modeling health or life insurance purchase. We use Karni's (1983) definition of risk aversion, and extend the class of risks to which it can be applied.

PD September 1992. TI Maxmin Expected Utility and Weight of Evidence. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-20; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 26. PR 2 pounds. JE D81. KW Choice Under Uncertainty. Uncertainty Aversion. Subjective Expected Utility.

AB Gilboa and Schmeidler (1989) have proposed an extension of subjective expected utility theory called maxmin expected utility (MMEU). We present a new exposition of this theory and suggest an extension of MMEU which does not allow strictly dominated alternatives to be chosen. MMEU is related to the earlier notion of weight of evidence and an application to welfare economics is discussed. We examine normative properties of MMEU and argue that the theory is not vulnerable to the Dutch Book argument.

PD September 1992. TI The Existence of Equilibrium and the Objective Function of the Firm. AU Kelsey, David; Milne, Frank. AA Kelsey; University of Birmingham. Milne; Queens University. SR University of Birmingham Department of Economics Discussion Paper: 92-22; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 22. PR 2 pounds. JE D52, D70, L20. KW Shareholder Voting. Incomplete Markets. Collective Decision.

AB We consider an economy in which firms' decisions are made by a collective decision of the shareholders. The main result shows the simultaneous existence of an exchange equilibrium in the market for shares and a voting equilibrium in the internal decisions for firms. We present our results in a general framework, with a measure space of agents. Our framework covers the cases of incomplete markets and externalities between firms and shareholders. We show that a voting rule due to Kramer is a special case.

PD May 1993. TI Dutch Book Arguments and Learning in a Non-Expected Utility Framework. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-03; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 20. PR 2 pounds. JE D81. KW Maximin Expected Utility. Bayesian Updating. Non-Additive Probability.

AB If an individual follows maxmin expected utility theory, then a smart outsider cannot in general make a bet with them which is certain to win in a single time period. However, in this paper we show that, when there are many time periods this is in general possible unless the decision-maker uses strategic behavior. There are some exceptional cases when this is not possible.

TI Uncertainty Aversion and Dynamic Consistency. AU Eichberger, Jurgen; Kelsey, David.

PD August 1993. TI Uncertainty Aversion: A Survey. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-09; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 28. PR 2 pounds. JE D81. KW Choice Under Uncertainty. Non-Additive Probability. Non-Expected Utility. AB This paper presents a survey of some recent developments in theory of choice under uncertainty and suggests some applications of these theories.

#### Kendix, Michael

TI The Impact of Alcohol Consumption and Marijuana Use on High School Graduation. AU Yamada, Tetsuji; Kendix, Michael; Tadashi, Yamada.

#### King, David C.

PD April 1993. TI The Nature of Congressional Committee Jurisdictions. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-8; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 28. PR \$5.00. JE D73, D71. KW Jurisdictions. Congressional Committees. Congress.

AB Jurisdictions are the defining characteristics of committee systems, and they are central in any discussions about the U.S. Congress. Yet we know little about them. Where do committee property rights come from? Are they rigid? Are they flexible? This paper introduces a distinction between statutory jurisdictions (which are written in the House and Senate Rules) and common law jurisdictions (which emerge through bill referral precedents). Turf is gained through common law advances, not through formal rules changes (like the "reforms" passed by the House in 1946, 1974, and 1980). Jurisdictional change is ongoing and incremental. The paper draws on an examination of hearings held by the House Commerce Committee from 1947 through 1990.

PD June 1993. TI Public Goods, Private Interests and Participation in Congressional Committee Hearings. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-13; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 17. PR \$5.00. JE D70, D71, D72, D73. KW Congress. Public Goods. Committee Hearing.

AB Participation in committee hearings is modeled using issue-level indicators of the private goods and public goods interests of constituents. Building on on Jackson & King (1989), and exploring Way and Means Committee hearings that shaped the 1978 Revenue Reform Act we find participation influenced by party cohesion, by ideas about how the economy could and should be run, and by the general pro-growth climate of some congressional districts. The impact of "particularistic" interests was much less dramatic than the distributive politics image would lead us to expect. We call for a more appropriate image of representation recognizing that constituents' preferences for public goods are indeed reflected in the participation patterns of lawmakers in committees.

#### Kitson, M.

PD April 1993. TI The Dollar-Pound Forward Exchange

Rate, 1919-1939. AU Kitson, M.; Samiei, H.; Solomou S. AA Samiei: International Monetary Fund. Kitson and Solomou: University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9312; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 9. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE F31, N20, G13, G14. KW Exchange Rate Regimes. Forward Exchange Market. Efficient Market Hypothesis.

AB This paper presents an empirical comparison of the forward exchange market in the three distinct regimes that prevailed successively during the interwar period. The purpose of the exercise is to evaluate the extent to which the efficiency of the forward market is regime-dependent. Within each regime we also examine the behavior of forward contracts of different maturities.

#### Kleidon, Allan W.

PD July 1993. TI Round-the-Clock-Trading: Evidence from U.K. Cross-Listed Securities. AU Kleidon, Allan W.; Werner, Ingrid M. AA Kleidon: Stanford University. Werner: Stanford University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4410; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 21. PR \$5.00. JE G10, G14, G15. KW Security Transactions. Cross-Listing. Trading Volume.

AB This paper uses transaction data from the London Stock Exchange to characterize the intraday pattern of security prices and trading volume for securities trading on SEAQ. It focuses in more detail on a sample of U.K. firms that are cross-listed on the NYSE. Using additional data from the NYSE-AMEX (ISSM), we compare volatility, volume, and quotes as trading starts in London and then continues in New York. These firms have substantially longer trading hours than most singly-listed stocks, and are also traded in two markets with very different institutional setups. This is shown to have several important implications for theories on intraday behavior of prices, the organization of exchanges, and the general consequences of round-the-clock trading.

#### Kleiman, Mark A. R.

PD January 1993. TI The Prince as Drama. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Paper: R93-3; Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. PG 28. PR \$5.00. JE A12. KW Machiavelli. Republic.

AB The evident contradictions between *The Prince* and the Discourses, and between the teaching of *The Prince* and Machiavelli's republican loyalties, pose a famous puzzle. The puzzle can be solved by reading *The Prince* as a dialogue between a Counsellor and a Prince, in which only the Counsellor speaks. If *The Prince* is a drama rather than an essay, its meaning may not lie on its surface. Faced with possible dramatic irony, the reader is forced to engage the text actively to discover the author's intention. A close reading reveals a republican message. The Prince's project of achieving glory via successful tyranny is incoherent; its effectual truth can be found only in the foundation or renovation of a republic or a law-governed monarchy. Machiavelli's choice of form, which denies the reader an opportunity to appropriate Machiavelli's

ideas passively and uncritically, is dictated by his beliefs that only the wise can be well-advised and that power, to be secure, must be self-reliant.

#### Korenman, Sanders

TI The Economic Reality of The Beauty Myth. AU Averett, Susan; Korenman, Sanders.

#### Kozicki, Sharon

PD September 1993. TI Techniques for Estimating Dynamic Comovement with an Application to Common International Output Fluctuations. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-32; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 26. PR no charge. JE C32. KW Common Features. Cointegration. Economic Growth.

AB This paper presents techniques for analyzing dynamic comovement in multivariate systems. Tools of cointegration and common features are used to simultaneously address issues of economic growth and transitory fluctuations, topics which have traditionally been treated independently. The concept of common features, introduced in Engle and Kozicki (1993), is extended to allow for analysis of a multivariate system. The techniques are used to analyze internationally synchronized fluctuations in output. Comovement in output growth rates can be attributed to both common permanent and common transitory components. Most of the fluctuations in output levels can be associated with variation in the permanent component.

#### Kremer, Michael

TI Good Policy or Good Luck? Country Growth Performance and Temporary Shocks. AU Easterly, William; Pritchett, Lant; Kremer, Michael; Summers, Lawrence.

#### Krueger, Alan B.

TI Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania. AU Card, David; Krueger, Alan B.

TI An Evaluation of Recent Evidence of the Employment Effects of Minimum and Subminimum Wages. AU Card, David; Katz, Lawrence F.; Krueger, Alan B.

#### Krugman, Paul

PD September 1993. TI Trade, Jobs, and Wages. AU Krugman, Paul; Lawrence, Robert Z. AA Krugman: Massachusetts Institute of Technology and National Bureau of Economic Research. Lawrence: Harvard University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4478; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 18. PR \$5.00. JE F14. KW International Competition. Trade Deficit. Competitiveness.

AB There is a broad consensus among U.S. opinion leaders that our economic problem is largely one of failures of international competition - that trade deficits have eroded our manufacturing base, that inability to sell on world markets has been a major drag on economic growth, and that imports from low-wage countries have caused a widening of income inequality. This paper summarizes recent evidence on these



issues, and shows that while there may be a grain of truth to each complaint, in each case the effect is quantitatively minor. The arithmetic of "competitiveness" just doesn't work.

#### Kupiec, Paul H.

PD August 1993. TI The Performance of S&P500 Futures Product Margins Under the SPAN Margining System. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-27; C/O Simon G. Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 15. PR no charge. JE E44, G18, G28. KW SPAN, Futures Margins, Risk Management.

AB This paper analyzes the performance of the Chicago Mercantile Exchanges' SPAN clearinghouse margin requirements on S&P500 stock index futures and futures options over the period 12/16/88 to 12/10/92. The SPAN system sets margin requirements on a portfolio basis for a customer, clearing member, or market maker account. Existing studies have focused exclusively on the adequacy of margins on naked futures positions and have not considered the historical performance of clearinghouse margins on naked futures-options positions or portfolios of futures and futures--options. Thus, the overall performance of futures-clearinghouse margin setting practice have not been analyzed in the literature. The empirical results suggest that SPAN clearinghouse margin requirements have provided coverage that exceed 99 percent of all one-day price moves experienced by naked futures, naked futures--options, and common futures--options portfolios over the sample period.

#### Kydland, Finn E.

TI International Business Cycles: Theory and Evidence. AU Backus, David K.; Kehoe, Patrick J.; Kydland, Finn E.

#### Lach, Saul

TI Better Late Than Early: Vertical Differentiation in the Adoption of a New Technology. AU Dutta, Prajit K.; Rusichini, Aldo; Lach, Saul.

#### Laing, Derek

TI The Macroeconomics of a Reforming Centrally Planned Economy with Queuing and Resale. AU Fender, John; Laing, Derek.

#### Lang, Kevin

PD September 1993. TI Bilateral Search as an Explanation for Labor Market Segmentation and Other Anomalies. AU Lang, Kevin; Dickens, William T. AA Lang: Boston University. Dickens: University of California, Berkeley and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4461; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 21. PR \$5.00. JE J63, J64. KW Unemployment, Job Search.

AB Since applying for jobs is costly, workers prefer applying where their employment probability is high and, therefore, to jobs attracting fewer higher quality applicants. Since creating vacancies is expensive, firms create more vacancies when job-seeking is high. Our model captures these ideas and accounts for worker heterogeneity by assuming three types of nearly identical workers. These infinitesimal quality differences

generate a discrete wage distribution. For some parameter values lower quality workers have discretely lower wages and higher unemployment than better workers. Moreover, increasing the number of the lowest quality workers can make all workers better off.

#### Lanjouw, Jean Olson

PD September 1993. TI Patent Protection: Of What Value and for How Long? AA Yale University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4475; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 55. PR \$5.00. JE O31, O34. KW Patents, Innovation, R&D.

AB Empirical estimates of the private value of patent protection are found for four technology areas - computers, textiles, combustion engines, and pharmaceuticals - using new patent data for West Germany, 1953-1988. Patentees must pay to keep their patents in force. A dynamic stochastic discrete choice model of optimal renewal decisions is developed incorporating both learning about an innovation and the market as well as the possibility of infringements. The evolution of the distribution of returns over the life of a group of patents is calculated for each technology using a minimum distance simulation estimator. Results indicate that learning is completed within 6 years, that obsolescence is rapid, and that the distributions of patent value are very skewed. Research and development (R&D) expenditures are calculated and patent protection as an implicit subsidy to investment in R&D discussed.

#### Lawrence Robert Z.

PD June 1993. TI Trade and U.S. Wages: Great Sucking Sound or Small Hiccup! AU Lawrence Robert Z.; Slaughter, Matthew J. AA Lawrence: Harvard University. Slaughter: Massachusetts Institute of Technology. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-16; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 36. PR \$5.00. JE F10, J30, J38. KW Wages, U. S. Wages, Compensation, Trade.

AB Since 1979, the average real compensation of U.S. workers has barely increased. In addition the earnings of skilled and qualified workers have risen sharply relative to those of their less qualified counterparts. Many have ascribed these changes to international trade. This paper argues, to the contrary, that US wage patterns have been dominated by domestic economic developments -- slow productivity growth and biased technological change. The paper demonstrates that the sluggish rise in US real compensation increased almost as rapidly as output per worker. Had workers chosen to consume the products they produce, their real compensation would have increased by about ten percent over the 1980's. However, real consumption compensation growth lagged behind real product compensation because of rise in the relative price of housing (which workers consume but not produce) and a decline in the relative price of investment goods (which workers produce but do not consume). Trade played no role in the discrepancy between product and consumption compensation -- the US terms of trade actually improved over the decade.

#### Lawrence, Robert Z.

TI The Responses of U.S. Firms to Exchange Rate Fluctuations: Piercing the Corporate Veil. AU Rangan,

Subramanian; Lawrence, Robert Z.

TI Trade, Jobs, and Wages. AU Krugman, Paul; Lawrence, Robert Z.

Layard, Richard

TI The Conditions of Life. AU Ilarionov, Andrei; Layard, Richard; Orszag, Peter.

Lebow, David

PD July 1993. TI Monetary Policy at Near-Zero Interest Rates. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 136; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80. Federal Reserve Board, Washington, D.C. 20551. PG 18. PR no charge. JE E52, E44. KW Monetary Policy. Liquidity Trap.

AB Monetary policy is commonly thought to influence real economic activity through its effects on interest rates. However, interest rates cannot be negative. Does this mean that monetary policy can no longer be expansionary once nominal interest rates have been driven to zero? This paper argues that open market purchases of government securities would surely be less expansionary than in the usual case, but that, nevertheless, for several reasons they may remain slightly expansionary. Of less theoretical interest but much more practical importance, the Federal Reserve has available other tools - opening the discount window to private non-bank borrowers, and purchasing private security of gold on the open market - that surely would remain effective when the federal funds rate is close to zero.

Lee, Lung-fei

PD July 1993. TI Rational Expectations in Limited Dependent Variable Models. AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-20; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 8. PR \$4.00; payable to the Department of Economics. JE C22, D84, C63. KW Rational Expectations. Limited Dependent Variables.

AB The appropriate characterizations of rational expectations solutions in one-limit and two-limit models are derived. We prove the existence and uniqueness of the rational expectations solution for each model. Our analysis is general without imposing serial independence and/or parametric distribution assumptions.

PD November 1993. TI Simulated Maximum Likelihood Estimation of Discrete Models with Group Data. AA University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-29; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 21. PR \$4.00; payable to the Department of Economics. JE C13, C25. KW Statistical Efficiency. Computation Time. Independent Simulation.

AB This article has compared the performance of two methods of simulated maximum likelihood for the estimation of discrete choice models with group data. One method of simulated likelihood uses simulators which are statistically independent across individuals in the sample. The alternative method allows simulators to be correlated across individuals.

The comparisons are based on the criteria of statistical efficiency and computation time cost. As the simulated maximum likelihood method with dependent simulators can take into account the presence of sufficient statistics in group data, it can have advantages over the simulated likelihood method with independent simulators in term of computation cost saving and statistical efficiency. The computation time cost of the simulated likelihood method with dependent simulators can be inexpensive as the method of simulated moments of McFadden (1989).

Lehmann, Hartmut

PD July 1993. TI Labour Market Flows and the Evaluation of Labour Market Policies in Poland. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 161; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 28. PR no charge. JE J64, P52. KW Economic Transition. Benefit System. Hirings.

AB This study investigates three issues of the Polish labor market adapting "transition methodology" to regional (Voivodship-level) panel data. First, we test for a well behaved matching technology of the unemployed and vacancies by estimating hiring functions for the years 1991 and 1992. Secondly, the effect of the regime switch from an earnings-related to a flat rate benefit system which took place at the beginning of 1992 is investigated. A priori it is thought that falling replacement ratios may increase search efforts by the unemployed thus boosting hirings. Finally, for 1992 we evaluate the effect of Active Labour Market Policies on hirings. While a well behaved matching technology cannot be established in the Polish labor market, well specified hiring functions are estimated which show that the experience of men and women is very different.

Leiderman, Leonardo

TI High Real Interest Rates in the Aftermath of Disinflation: Actual or Expected? AU Kaminsky, Graciela L.; Leiderman, Leonardo.

Lenway, Stefanie

TI Political and Economic Consequences of Alternative Privatization Strategies. AU Mann, Catherine L.; Lenway, Stefanie; Utter, Derek.

Lewis, Geoffrey

PD November 1993. TI Small-Country Tax Policy and International Capital Markets. AA University of Bristol. SR University of Bristol Economics Working Paper: 93/364; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 27. PR no charge. JE H21, H73, H87. KW International Tax. Residence Taxation. Capital-Export Neutrality.

AB How ought a small country that is a net capital importer and which allows capital to flow freely to and from a highly-integrated world capital market design the international part of its income tax system? The analysis in this paper seeks to throw light on this question by building a simple asset-equilibrium model of residents of different countries interacting in a world capital market. It is argued that current tax rules and practice in other countries imply that any particular small country must

accept that it faces a world dominated by source taxation. Given this, the pursuit of capital export neutrality by the country will not improve efficiency or raise significant revenue. The best the country can do, acting alone, is to abolish source taxation of foreigners and adopt the residence principle with foreign taxes deducted rather than credited.

#### Ley, Eduardo

PD October 1993. TI On the Private Provision of Public Goods: A Diagrammatic Exposition. AA Universidad Carlos III de Madrid and University of Michigan. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-27; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 17. PR \$4.00; payable to the Department of Economics. JE H41, H20. KW Public Goods. Kolm Triangle. Subsidies.

AB In this paper, we provide simple geometrical proofs of various results from the public-good literature using the Kolm triangle. We also present a new result concerning the subsidization of private contributions.

#### Li, David D.

PD November 1993. TI Large Shareholders, Private Benefits of Control and Optimal Schemes for Privatization. AU Li, David D.; Cornelli, Francesca. AA Li: University of Michigan. Cornelli: London School of Economics. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-26; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 25. PR \$4.00; payable to the Department of Economics. JE L33, G32, G34, P42. KW Economic Transition. Control Right.

AB We analyze optimal schemes for privatization in a transitional economy. In many cases, established Western firms are good candidates for large shareholders of a local firm, since the sale of the shares can generate large amount of revenues and furthermore, in the future, the home country can free-ride on the efficiency improvement of the firm. However, not all Western firms are good owners. Some of them are more interested in the private benefit of control than the potential of efficiency improvement. Such Western firms are bad owners in the long run, although they may well be willing to pay a high price to obtain the control right. Assuming that the government cares about a convex combination of sales revenue and the future value of the firm, we show that the optimal scheme is dependent upon the magnitude of the control benefit. Moreover, we show that the number of shares sold is a crucial instrument to attract the most efficient company.

#### Liang, Nellie J.

TI Bank Commercial Lending and the Influence of Thrift Competition. AU Hannan, Timot; Liang, Nellie J.

#### Lindsey, John

PD April 1993. TI Equilibrium with Agglomeration Economies. AU Lindsey, John; Zeckhauser, Richard. AA Harvard University. SR Harvard John F. Kennedy School of Government Working Paper Series: R93-1; Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. PG 9. PR \$5.00. JE R10, D50. KW Agglomeration. Economic Activity.

AB Concentrating economic activity in cities facilitates the

exchange of information, thickens markets, reduces transportation costs, and fosters the consumption of public goods. We represent the desire of agents to be close to one another, and to such features as harbors or museums, by a disutility of distance function. Each individual (or firm) adds disutilities, then selects the location that minimizes this sum. We examine the spatial equilibrium assuming each individual maximizes for himself, ignoring the well being and responses of others. We find the Nash equilibrium, first on a line, and then for higher dimension spaces. For reasonable disutility of distance functions this equilibrium will be unique. It will not, however, be Pareto optimal. Given the attractions of players to each other, it might seem Pareto-superior outcomes would be denser than the equilibrium. That is not necessarily so.

#### Lopez-de-Silanes, Florencio

PD October 1993. TI Anti-Competitive and Rent-Shifting Aspects of Domestic-Content Provisions in Regional Trade Blocks. AU Lopez-de-Silanes, Florencio; Markusen, James R.; Rutherford, Thomas F. AA Lopez-de-Silanes: National Bureau of Economic Research. Markusen: University of Colorado and National Bureau of Economic Research. Rutherford: University of Colorado. SR National Bureau of Economic Research Working Paper: 4512; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 39. PR \$5.00. JE F10, F12, F13. KW Trade Agreements. Domestic Content Rules. Oligopoly.

AB Regional trade agreements must specify domestic-content rules (rules of origin) that define the conditions under which a good qualifies as "domestic" and so may be freely traded within the block. The paper analyzes such rules, focusing in particular on oligopolistic industries in which foreign multinationals producing within the block rely much more on imported intermediate inputs than do domestic firms. In such a situation, we argue that domestic content provisions are anti-competitive, reducing overall final output of the industry, and shift rents (in the absence of free entry) to domestic firms. It is possible that the anti-competitive aspect of the rules are sufficiently strong that total industry profits rise and the equilibrium demand for the substitute domestic inputs falls (the scale effect of reduced output outweighs a substitution effect in favor of domestic intermediates). The latter effect is more likely to the extent that the foreign multinationals can switch from producing within the block to exporting to the block. These ideas are then examined numerically using an applied general-equilibrium model of the North American auto industry.

#### Lubke, Theodore, J. F.

TI From Each According to His Surplus: Equi-Proportionate Sharing of Commodity Tax Burdens. AU Hines, James R., Jr.; Hlinko, John C.; Lubke, Theodore, J. F.

#### Lyons, Richard K.

PD September 1993. TI Optimal Transparency in a Dealership Market with an Application to Foreign Exchange. AA University of California, Berkeley and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4467; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 30. PR \$5.00. JE F31, D82. KW Mechanism-Design. Exchange Market. Price Discovery.

AB This paper addresses the issue of optimal transparency in

a multiple-dealer market. In particular, we examine the question: Would risk-averse dealers prefer ex-ante that signed order flow were observable? We answer this question with the solution to a mechanism design problem. The resulting incentive-efficient mechanism is one in which signed order flow is not observable. Rather, dealers prefer a slower pace of price discovery because it induces additional risk-sharing. Specifically, slower price discovery permits additional trading with customers prior to revelation; this reduces the variance of unavoidable position disturbances, thereby reducing the marketmaking risk inherent in price discovery. We then apply the framework to the spot foreign exchange market in order to understand better the current degree of transparency in that market.

PD September 1993. TI Tests of Microstructural Hypotheses in the Foreign Exchange Market. AA University of California, Berkeley and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4471; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 26. PR \$5.00. JE F31, G14. KW Information Effects. Microstructure.

AB This paper introduces a three-part transactions dataset to test various microstructural hypotheses about the spot foreign exchange market. In particular, we test for effects of trading volume on quoted prices through the two channels stressed in the literature: the information channel and the inventory-control channel. We find that trades have both a strong information effect and a strong inventory-control effect, providing support for both strands of microstructure theory. The bulk of equity-market studies also find an information effect; however, these studies typically interpret this as evidence of inside information. Since there are no insiders in the foreign exchange market, this finding suggests a broader conception of the information environment, at least in this context.

#### Maccini, Louis J.

TI Measuring Noise in Inventory Models. AU Durlauf, Steven N.; Maccini, Louis J.

#### MacDonald, Glenn

TI Competitive Diffusion. AU Jovanovic, Boyan; MacDonald, Glenn.

#### Machin, Stephen

PD July 1993. TI Are Workers Paid Their Marginal Product? Evidence from a Low Wage Labour Market. AU Machin, Stephen; Manning, Alan; Woodland, Stephen. AA Machin: University College London and London School of Economics. Manning and Woodland: London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 158; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 27. PR no charge. JE J42. KW Monopsony. Exploitation.

AB Because of labor market frictions, the supply of labor to a firm does not fall instantaneously to zero if an employer cuts wages. This gives employers some monopsony power. In the absence of trade unions, minimum wages and efficiency wage considerations a profit-maximizing employer will set a wage below the marginal revenue product of labor so that workers are, to use the terminology of Hicks and Pigou, exploited. This

paper presents a method for computing the rate of exploitation. This method is then applied to unique data set on workers in residential homes for the elderly on England's sunshine coast. We conclude that, on average, firms pay workers about 15% less than their marginal product.

#### Madrian, Brigitte C.

TI Health Insurance Availability and the Retirement Decision. AU Gruber, Jonathan; Madrian, Brigitte C.

PD September 1993. TI Employment-Based Health Insurance and Job Mobility: Is There Evidence of Job-Lock? AA Harvard University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4476; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 33. PR \$5.00. JE J60, J62, J63, J32. KW Job Turnover. Health Insurance.

AB This paper assesses the impact of employer-provided health insurance on job mobility by exploring the extent to which workers are "locked" into their jobs because preexisting conditions exclusions make it expensive for individuals with medical problems to relinquish their current health insurance. I estimate the degree of job-lock by comparing the difference in the turnover rates of those with high and low medical expenses for those with and without employer-provided health insurance. Using data from the 1987 National Medical Expenditure Survey, I estimate that job-lock reduces the voluntary turnover rate of those with employer-provided health insurance by 25 percent, from 16 percent to 12 percent per year.

TI Limited Insurance Portability and Job Mobility: The Effects of Public Policy on Job-Lock. AU Gruber, Jonathan; Madrian, Brigitte C.

#### Maher, Maria E.

TI Investment and Trade over Networks: Commitment Through Joint Ventures. AU Doyle, C.; Maher, Maria E.

PD August 1993. TI Access Costs and Entry in the Local Telecommunications Network: A Case for De-Averaged Rates. AA University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9315; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 10. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE D40, L96, L51. KW Market Structure. Pricing. Regulation.

AB The present method of covering the cost of customer access to the local telecommunications network through non-cost based access charges cannot be sustained over the long run. The emergence of competition, local network bypassing, technological advances, and the Federal Communication Commission's change in regulatory policy are making current state regulatory policies non-sustainable. This work estimates a generalized translog cost function of access costs at the local level in order to address these issues. The results of this study are that there are economies of scale in the provision of access to the local network and these costs differ by geographical location. One of the important findings of this study is that cost-based rates at the local level would not be prohibitively high and would not threaten universal service objectives. Issue relating to cross-subsidies, market structure, competition, and entry in the local market are also discussed.

**Mailath, George J.**

PD September 1993. TI Is There Always a "Right" Extensive Form? AU Mailath, George J.; Samuelson, Larry; Swinkels, Jeroen M. AA Mailath: University of Pennsylvania. Samuelson: University of Wisconsin. Swinkels: Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1062; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 4. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE C70. KW Extensive Form.

AB It is well recognized that many solution concepts are not robust to changes that, a priori, appear to be strategically innocuous. The most striking instances of this involve sequential equilibrium and the coalescing of moves (such as representing an agent's choice from three actions as a single choice rather than two sequential choices). We consider a number of examples of this.

**Mann, Catherine L.**

PD September 1993. TI Political and Economic Consequences of Alternative Privatization Strategies. AU Mann, Catherine L.; Lenway, Stefanie; Utter, Derek. AA Mann: Board of Governors of the Federal Reserve System. Lenway: University of Minnesota. Utter: University of Pennsylvania. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 455; Division of International Finance, Board of Governors of the Federal Reserve System, Washington DC 20551. PG 28. PR no charge. JE D23,D72,G30,G38,L33. KW Privatization. Eastern Europe. Corporate Governance.

AB The different approaches to large-scale privatization in Hungary, Poland, and the Czech Republic imply somewhat different patterns of corporate governance -- that is, ownership, monitoring, and control of firms. Corporate governance affects economic incentives within the firm, and therefore economic performance of the firm. Similarly, patterns of ownership implied by the programs affect the distribution of gains from reform. Privatizing the large programs affect the distribution of gains from reform. Privatizing the large enterprise will importantly influence resource allocation, employment, and output. Consequently, the patterns of corporate governance embodied in the privatization strategies could affect macroeconomic performance and the development of constituencies in favor of or against continued reforms.

**Manning, Alan**

PD June 1993. TI The Equal Pay Act as an Experiment to Test Theories of the Labour Market. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 153; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 22. PR no charge. JE J42, J31, J38, J78. KW Labor Market. Unemployment. Monopsony.

AB The UK Equal Pay Act of 1970 resulted in a large rise in the relative earnings of women in the early 1970's. As this change (unlike most wage changes) was largely exogenous to employers one can think of this episode as an experiment for testing different theories of the labor market. Hence, study of the effects of the Equal Pay Act should be given considerable

weight and is likely to have wider implications about the operation of labor markets. Most models of the labor market used by economists assume that employment is demand-determined at least after a large positive shock to the wage. These models would predict that female relative employment should have fallen after the introduction of the Equal Pay Act. Yet, it is hard to find evidence of this. This paper argues that female relative employment did not fall because the female labor market is, in part monopsonistic.

TI Are Workers Paid Their Marginal Product? Evidence from a Low Wage Labour Market. AU Machin, Stephen; Manning, Alan; Woodland, Stephen.

**Manuelli, Rodolfo E.**

TI Growth and the Effect of Inflation. AU Jones, Larry E.; Manuelli, Rodolfo E.

TI On the Optimal Taxation of Capital Income. AU Jones, Larry E.; Manuelli, Rodolfo E.; Rossi, Peter E.

**Markusen, James R.**

TI Anti-Competitive and Rent-Shifting Aspects of Domestic-Content Provisions in Regional Trade Blocks. AU Lopez-de-Silanes, Florencio; Markusen, James R.; Rutherford, Thomas F.

PD October 1993. TI Discrete Plant-Location Decisions in an Applied General-Equilibrium Model of Trade Liberalization. AU Markusen, James R.; Rutherford, Thomas F. AA University of Colorado and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4513; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE F10, F14, L92. KW Trade Liberalization. International Trade. Auto Industry.

AB Theoretical and applied work in industrial-organization approaches to international trade typically assume either that there is a fixed number of firms, or that there is free entry and exit with a continuum of firms. This paper makes a first step toward a more realistic approach in which firms face discrete choices about the numbers and locations of their plants. The model is applied to the North American auto industry in the context of the draft North American Free Trade Agreement. Results include: (1) production appears to be excessively geographically diversified initially; (2) autos are produced in fewer locations as trade barriers are lowered; (3) a "non-monotonicity" case is produced in which a plant is first closed and then reopened as trade barriers are progressively lowered; (4) an example of the misleading nature of marginalist analysis is presented in which plants in Canada and Mexico increase production when locations are fixed but closed down when locations are endogenous and optimized.

**Matsuyama, Kiminori**

PD June 1993. TI Self-Defeating Regional Concentration. AU Matsuyama, Kiminori; Takahashi, Takaaki. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1050; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 24. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE F12, O11, R13. KW Labor Migration.

**Undesirable Regional Concentration.**

**AB** We present a simple model of a two-region economy in which undesirable concentration may occur. With freedom to choose where to live, individuals in this economy concentrate into one region in their pursuit of a better life, and end up becoming worse off. We characterize the conditions under which such self-defeating concentration occurs in terms of a few key parameters, such as economies of scale in nontradeable service sectors, regional differences in labor productivity in tradeable goods sectors, and substitutability of tradeable goods in consumption.

**PD** October 1993. **TI** Self-Defeating Regional Concentration. **AU** Matsuyama, Kiminori; Takahashi, Takaaki. **AA** Matsuyama: Northwestern University and National Bureau of Economic Research. Takahashi: Northwestern University. **SR** National Bureau of Economic Research Working Paper: 4484; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$5.00. **JE** R11, O15. **KW** Concentration.

**AB** We present a simple model of a two-region economy in which undesirable concentration may occur. With freedom to choose where to live, individuals in this economy concentrate into one region in their pursuit of better life, and end up becoming worse off. We characterize the conditions under which such self-defeating concentration occurs in terms of a few key parameters, such as economies of scale in nontradable service sectors, regional differences in labor productivity in tradable goods sectors, and substitutability of tradable goods in consumption.

**Matthews, Steven A.**

**PD** June 1993. **TI** Renegotiation of Sales Contracts. **AA** Northwestern University. **SR** Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1051; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. **PG** 28. **PR** per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. **JE** D21, D82, C72. **KW** Contracts. Principal-Agent. Moral Hazard. Renegotiation Incentives.

**AB** Contracts adopted with later renegotiation in mind may take simple forms. In a principal-agent model, if renegotiation may occur after the agent chooses effort, the principal protects against unfavorable renegotiation by "selling the project" to the agent via a sales contract. If only singleton (single scheme) contracts are feasible, the equilibrium initial contract must be a sales contract if the principal's renegotiation position will be inherently inferior in the sense that (a) the agent will have the bargaining power; (b) the principal will not observe the agent's effort, and (c) the agent has the talent, i.e. a rich set of feasible efforts, to exploit contractual nuances. Renegotiation necessarily occurs, and it yields (second-best) efficient allocations. Even when menu (multiple-scheme) contracts are available, if the selection of a scheme from a menu entails any cost, then the final contract is a singleton and equilibrium renegotiation occurs. If there is any complexity cost to specifying a menu, the initial contract must also be a singleton; it is necessarily a sales contract if the agent has talent. A weak forward induction refinement criterion is used to obtain these results.

**May, Ernest R.**

**PD** April 1993. **TI** The News Media in International Affairs 1939-1979. **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-10; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. **PG** 34. **PR** \$5.00. **JE** A12, L82, F00. **KW** News Media. Public Opinion. Foreign Policy.

**AB** This is a chapter to appear sometime next year in Gordon Craig's *The Diplomats, 1939-1979*. It makes four points: (1) The news media changed enormously during those decades. (2) Despite great improvements in ability to cover particular stories, the news media in developed countries became progressively less effective as educators of public opinion. (3) Nevertheless, paradoxically, the news media gave public opinion greater influence on foreign policy and diplomacy. (4) But trends of before 1979 were not good indicators of what would happen later.

**McAleer, M.**

**PD** March 1993. **TI** Cointegration and Direct Tests of the Rational Expectations Hypothesis. **AU** McAleer, M.; McKenzie, C. R.; Pesaran, M. Hashem. **AA** McAleer: University of Western Australia and Kyoto University. McKenzie: Osaka University. Pesaran: University of Cambridge and University of California, Los Angeles. **SR** University of Cambridge Department of Applied Economics Working Paper: 9306; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 28. **PR** \$5.00 (L2.50), checks payable to University of Cambridge. **JE** C32, C51, C52, C82. **KW** Orthogonality Tests. Generated Regressors. Unit Roots.

**AB** The paper is concerned with direct tests of the rational expectations hypothesis (REH) in the presence of stationary and non-stationary variables. Alternative methods of converting qualitative survey responses into quantitative series are examined. Testing of orthogonality and the issue of generated regressors for models estimated by two-step methods are re-evaluated when the variable to be explained is stationary. A methodological approach for testing the REH is provided for models using qualitative response data when there are unit roots and cointegration, and alternative reasons are examined for rejecting the null hypothesis of orthogonality. The usefulness of cointegration analysis for both the probability and regression conversion procedures is also analyzed. Cointegration is found to be directly applicable for the probability conversion approach with uniform, normal and logistic distributions of expectations and for the linear regression conversion approach.

**McCurdy, Thomas H.**

**PD** October 1993. **TI** Duration Dependent Transitions in a Markov Model of U.S. GNP Growth. **AU** McCurdy, Thomas H.; Durland, J. Michael. **AA** McCurdy: Queen's University. Durland: Bank of Nova Scotia. **SR** Queen's Institute for Economic Research Discussion Paper: 887; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 19. **PR** \$3.00 + GST Canada; \$3.50 U.S. and Foreign. **JE** C41, C51, C52, C53. **KW** Transition Probabilities. Regime Switches. Asymmetric Cycles.

**AB** Hamilton's (1989) nonlinear Markovian filter is extended

to allow state transitions to be duration dependent. Restrictions are imposed on the state transition matrix associated with a  $t$ -order Markov system such that the corresponding first-order conditional transition probabilities are functions of both the inferred current state and also the number of periods the process has been in that state. High-order structure is parsimoniously summarized by the inferred duration variable. Applied to U.S. post-war real GNP growth rates, we obtain evidence in support of nonlinearity, asymmetry between recessions and expansions, as well as strong duration dependence for recessions but not for expansions.

#### McDermed, Ann A.

TI Post-Retirement Increases in Pensions in the 1980's: Did Plan Finances Matter? AU Allen, Steven G.; Clark, Robert L.; McDermed, Ann A.

#### McKenzie, C. R.

TI Cointegration and Direct Tests of the Rational Expectations Hypothesis. AU McAleer, M.; McKenzie, C. R.; Pesaran, M. Hashem.

#### McKenzie, Joseph A.

TI Thrift Asset-Class Returns and the Efficient Diversification of Thrift Institution Portfolios. AU Cole, Rebel A.; McKenzie, Joseph A.

TI Asymmetric-Information and Principal-Agent Problems as Sources of Value in FSLIC-Assisted Acquisitions of Insolvent Thrifts. AU Cole, Rebel A.; Eisenbeis, Robert A.; McKenzie, Joseph A.

#### Mead, Lawrence M.

PD June 1993. TI Poverty: How Little We Know. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-26; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 26. PR \$5.00. JE I30, I31, I32. KW Poverty, Welfare.

AB Researchers have failed to explain long-term, working-aged poverty satisfactorily. Theories that the problem is due to barriers, such as welfare disincentives or lack of jobs, look less persuasive today than a generation ago. Explanations might be improved by including the effects on behavior of public authority and poverty culture, but to operationalize such influences is difficult. More fundamental difficulties include separating cause from effect and discriminating among closely-related determinants. The causes of serious poverty will probably remain elusive.

#### Melino, Angelo

TI A Revealed Preference Analysis of Asset Pricing Under Recursive Utility. AU Epstein, Larry G.; Melino, Angelo.

#### Metcalf, Gilbert E.

TI Who Pays Broad-Based Energy Taxes? Computing Lifetime and Regional Incidence. AU Bull, Nicholas; Hassett, Kevin A.; Metcalf, Gilbert E.

#### Mikkelsen, Hans Ole

TI An Arbitrage Free Trilateral Target Zone Model. AU Jorgensen, Bjorn N.; Mikkelsen, Hans Ole.

#### Milesi-Ferretti, Gian-Maria

TI The Political Economy of Capital Controls. AU Alesina, Alberto; Grilli, Vittorio; Milesi-Ferretti, Gian-Maria.

#### Milne, Frank

TI The Arbitrage Pricing Theorem with Non-Expected Utility Preferences. AU Kelsey, David; Milne, Frank.

TI The Existence of Equilibrium and the Objective Function of the Firm. AU Kelsey, David; Milne, Frank.

#### Mitchell, Olivia S.

PD August 1993. TI Retirement Systems in Developed and Developing Countries: Institutional Features, Economic Effects, and Lessons for Economies in Transition. AA Cornell University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4424; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 47. PR \$5.00. JE J14, J18. KW Retirement Systems, Retirement Savings.

AB Multiple-pillar retirement systems have widely differing roles for private retirement savings, government regulation and insurance of private savings vehicles, and government provision of old-age income support. Despite their diversity, and despite the fact that public and private sector retirement systems command a great deal of wealth and have potentially powerful effects on labor and capital markets, they are often overlooked in structural analyses of country problems and prospects. This paper examines important institutional features of retirement systems in developed and developing countries, and outlines what is known about their economic effects. Also identified are ways in which public and private retirement systems affect the process of economic adjustment, with special attention to the costs and benefits of encouraging early retirement. The review shows that a coherent reform plan for a retirement system must identify how much old-age income security is affordable, how the government and private sector can address private market failures in providing this security, and how these objectives can be attained given available financing mechanisms.

#### Montgomery, Edward B.

PD August 1993. TI Patterns in Regional Labor Market Adjustment: The United States vs. Japan. AA University of Maryland and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4414; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 37. PR \$5.00. JE J40, J21. KW Labor Markets Behavior, Unemployment.

AB In this paper I examine regional labor market behavior in the United States and Japan. In contrast with the picture at the aggregate level, Japanese labor markets at the prefectural (regional) level appear to exhibit substantially more persistence than state level labor markets in the United States. The distribution (and positions of regions within the distribution) of wages, unemployment, employment growth, and migration remain remarkably constant in Japan for periods of up to 15 years. Although wages, unemployment, and migration appear to be driven by similar factors in both countries, wages appear to be slightly more sensitive while unemployment is less sensitive

to demand shifts in Japan than in the U.S.

**Montgomery, John D.**

PD September 1993. TI Beyond Human Rights: Research Agenda of the Pacific Basin Research Center. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-31; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 10. PR \$5.00. JE J17, D63. KW Quality of Life. Human Values. Individual Rights.

AB The major purpose of the state should be to improve the quality of human life, primarily of its own citizens. Human aspirations are not identical, however, and they are not necessarily always stable within an individual or in harmony with those of others. To protect these aspirations against abuse, most states acknowledge the existence of fundamental human rights that define the limitations of their actions and those of their individual citizens; in these states, interpreting and defending them is among the highest duty of the political system. Beyond these restraints, however, lie even more positive aspects of statecraft, notable obligation to use policy resources to enhance the opportunities of citizens to advance their own moral self-fulfillment. This research agenda proposes to study how resources are currently deployed in the service of eight types of human values, including their positive and negative applications in Asian countries. Knowledge derived from these studies will contribute to more aggressive efforts in the region to use public policies in the service of human dignity.

**Morris, J. L.**

PD May 1992. TI UTILESE - A General Model of Human Cognition for Economic Text Comprehension. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-07; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 36. PR 2 pounds. JE B41, C88. KW Human Motivation. Cognitive Model.

AB This paper describes the main details of the specification for a software package UTILESE which is under construction at the University of Birmingham. The software aims to simulate human motivation and life-interests from an evolutionary perspective. It is argued that this approach permits analysis of the cognate behavior of economic agents and economists, paving the way for the analysis of economic arguments in text form. Another possible application of UTILESE would be for automating the search for a negotiated settlement in trade disputes.

**Mpuku, Herrick C.**

TI Measures of Country Risk: A Non-Linear Probability Analysis. AU Ford, J. L.; Mpuku, Herrick C.

TI Revenue Risks, Risk Attitudes and the Optimal Output and Insurance Cover of a Competitive Firm. AU Ford, J. L.; Mpuku, Herrick C.; Pattanaik, Prasanta K.

**Mullineux, Andrew W.**

PD March 1992. TI Privatisation and Financial Structure in Eastern and Central European (ECE) Countries. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-

04; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 34. PR 2 pounds. JE L33, O16, G21, G20, G30. KW Privatization. Banks. Economic Transition.

AB This paper considers the role of the financial system in the restricting of Eastern and Central European economies. It is argued that, for privatization to succeed, the privatized firms must be able to raise working and investment capital from financial institutions. Banks are burdened with bad debts, however, and are in no position to provide this capital and support the state sector firms, which will remain a sizable proportion of the economy for some time, unless they are recapitalized. Recapitalization will be an expensive burden on the state budget at a time when there are many competing claims and the budget deficit has to be reduced. It is argued that the privatization program itself will not make a net contribution to the budget if all costs (including social) are taken into account. Privatization should therefore proceed at a measured pace and more attention should be paid to creating a financial infrastructure which helps small and medium sized enterprises to thrive.

PD 1993. TI Privatisation and Banking Sector Reform: Lessons from Poland. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-07; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 26. PR 2 pounds. JE G21, P21, L33, O52. KW Financial Restructuring. Privatization. Economic Transition.

AB Banks should be relieved of at least some of their inherited bad debts at an early stage in the transition of formerly centrally planned economies. This should eliminate all seemingly perverse bank lending behavior and ensure that banks allocate capital more efficiently than the former central planners. The financial restructuring of banks will be mirrored in a restructuring of state-owned enterprises, and hence will pave the way for an early launch of the privatization program. The restructured banks should be privatized and encouraged to develop an active role in corporate governance, so that privatization can proceed successfully. Partial relief of bank debt, involving some debt for equity swaps between banks and SOE's, is a way of: containing the costs resolving the bad debt problem and the enterprise debt overhang; and giving banks a stake in active corporate governance. It should also, along with the establishment of an effective bank regulatory and supervisory system, help to curb any moral hazard arising out of "bailing out" the banks.

TI Currency Convertibility, Policy Credibility and Capital Flight in Poland and the CSFR. AU Dickinson, David G.; Mullineux, Andrew W.

PD June 1993. TI Financial Innovation, Banking and Monetary Aggregation in the UK. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-06; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 52. PR 2 pounds. JE C82, E40, E44, G20. KW Monetary Aggregates. Money. Asset Liquidity.

AB The definition and measurement of money in the light of the rapid financial innovation in the 1970's and 1980's and changes in the slope of the yield curve is discussed. Product innovation, particularly relating to payment services, has



increased the liquidity of monetary assets and has reduced the opportunity cost of holding them. To the extent that market interest rates adjust quickly to innovations, weighted monetary indices, which respond to changes in "own rates" on monetary components relative to a "benchmark rate", will capture the impact of both financial innovation and changes in the yield curve. The latter can have a significant impact on the attractiveness of monetary assets commonly included in "broad" monetary aggregates relative to longer term savings instruments; such as equities or bonds. Because the weights on monetary components adjust to changes in relative interest rates, Divisia indices may have better indicator properties than traditional monetary aggregates formed by summing monetary assets.

#### Murphy, Kevin J.

TI Subjective Performance Measures in Optimal Incentive Contracts. AU Baker, George; Gibbons, Robert S.; Murphy, Kevin J.

#### Murphy, Kevin M.

TI Social Status, Education and Growth. AU Fershtman, Chaim; Murphy, Kevin M.; Weiss, Yoram.

#### Murty, M. N.

PD October 1991. TI Externalities, Tax Competition and the Design of an International Carbon Tax. AA University of Birmingham and University Enclave, Delhi. SR University of Birmingham Department of Economics Discussion Paper: 91-21; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 20. PR 2 pounds. JE D62, H21, H87, Q25. KW Taxation. Air Pollution. International Taxation.

AB This paper finds that the externalities of air pollution abatement and competition among countries for fixing national carbon taxes cumulatively contribute to the inefficiency of carbon taxes for obtaining the required reduction in greenhouse gases. It argues that a uniform international carbon tax with side payments related to the national governments' expenditures on pollution abatement provides incentives to countries to reduce greenhouse gases. It shows that carbon taxes are country specific and can be obtained by a combination of national carbon taxes and a uniform international carbon tax with side payments.

PD January 1992. TI Inter-Governmental Resource Transfers, Tax Competition and Externalities in a Federation. AA University of Birmingham and University Enclave, Delhi. SR University of Birmingham Department of Economics Discussion Paper: 92-03; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 21. PR 2 pounds. JE H87, H23. KW Fiscal Competition. Fiscal Equilibrium. Ramsey Rule.

AB This paper considers some issues related to inter-governmental resource transfers, taxes and fiscal competition in a federation. State market equilibria are defined assuming that an individual belonging to a state makes choices of private good consumptions from domestic production and imports from the other state. Fiscal equilibrium of a government is determined by a many person Ramsey rule. Noncooperative fiscal equilibrium in the economy is obtained by using a Nash  $n$ -person non-cooperative game. The important result is that in non-cooperative fiscal equilibrium there can be an oversupply

of private goods and under-or oversupply of public goods. A cooperative fiscal equilibrium is defined for achieving Pareto efficient fiscal choices.

#### Myerson, Roger B.

PD September 1993. TI Axiomatic Derivation of Scoring Rules Without the Ordering Assumption. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1063; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 24. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D71. KW Scoring Rules. Voting.

AB Earlier derivations of scoring rules, by Smith (1973) and Young (1975), assumed that a voter can express only a rank ordering of the alternatives on his or her ballot. This paper shows that scoring rules can be derived without this ordering assumption. It is shown that a voting rule must be a scoring rule if it satisfies three basic axioms: reinforcement, overwhelming majorities, and neutrality. Other range and nonreversal axioms are also discussed.

#### Nadiri, M. Ishaq

PD August 1993. TI Innovations and Technological Spillovers. AA National Bureau of Economic Research and New York University. SR National Bureau of Economic Research Working Paper: 4423; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 36. PR \$5.00. JE O30, O32. KW R&D Investment. Inventive Activity. Productivity.

AB In this paper we analyze the evidence from a large number of studies on three specific question pertaining to R&D investment: (1) Are there diminishing return to inventive activities? (2) What is the relationship between R&D and productivity and what are the magnitudes of the returns to a firm's or industry' R&D investment? (3) What are the magnitudes of the benefits from R&D undertaken by other firms, industries and countries and the vehicles by which they are transmitted to the recipients? The evidence on the first issue is still controversial, basically because of the lack of an adequate measure of output and precise measurement of the inputs to the inventive process. On the second question, the results clearly suggest a positive and strong relationship between R&D expenditures and growth of output or total factor productivity.

#### Naslund, Bertil

TI Currency Option Pricing in Credible Target Zones. AU Dumas, Bernard; Jennergren, L. Peter; Naslund, Bertil.

#### Neeman, Zvika

PD May 1993. TI Common Beliefs and the Existence of Speculative Trade. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1052; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 25. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D80, D82, D84, C70, G10. KW No-Trade. Bounded Rationality. Common

Knowledge.

**AB** This paper shows that if rationality is not common knowledge, the no-trade theorem of Milgrom and Stokey (1982) fails to hold. We adopt Monderer and Samet's (1990) notion of common  $p$ -beliefs and show that when traders entertain doubts about the rationality of other traders, and even if these doubts are very small, arbitrarily large volumes of trade as well as rationality may be common  $p$ -belief for a large  $p$ . Furthermore rationality and trade may simultaneously be known to arbitrary large (but finite) degree. The underlying intuition of the model is that, in trade situation every trader may be rational but may believe that the others are not fully rational. Thus, rational traders trade with each other, believing that the other trader might be wrong, while they are right.

### Neumark, David

**PD** June 1993. **TI** Minimum Wage Effects on Employment and School Enrollment: Evidence from Policy Variation in Schooling Quality and Compulsory Schooling Laws. **AU** Neumark, David; Wascher, William. **AA** Neumark: University of Pennsylvania. Wascher: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 133; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 21. **PR** no charge. **JE** J38, J22. **KW** Minimum Wages. Youth Employment.

**AB** We consider the interpretation of efforts to use variation in the minimum wage as a natural experiment to study low-wage labor markets. In particular, we argue that such efforts should control for variables reflecting supply shifts, such as changes in school enrollment rates. Because enrollments are likely to be endogenous, we instrument using variation in state compulsory schooling laws and policy-related school quality measures. In addition, we show that reduced form employment equations, even with controls for exogenous variables that shift supply, give a misleading view of minimum wage effects. While the reduced-form estimates of minimum wage effects on employment are small, the structural estimates show that higher minimum wages also reduce enrollment rates and increase the proportion of individuals neither in school nor employed.

**PD** October 1993. **TI** Employment Effects of Minimum and Subminimum Wages: Reply to Card, Katz, and Krueger. **AU** Neumark, David; Wascher, William. **AA** Neumark: University of Pennsylvania. Wascher: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 144; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 23. **PR** no charge. **JE** J38. **KW** Minimum Wage. Youth Employment.

**AB** In Neumark and Wascher (1992), we present findings supporting the earlier consensus that minimum wages reduce employment for teens and young adults, with elasticities in the range -0.1 to -0.2. In addition, we find that subminimum wages moderate these disemployment effects. Card, Katz, and Krueger (1993) criticize numerous aspects of our analysis and contest our conclusions. This reply presents an assessment of their arguments, as well as additional evidence related to some of the criticisms that they raise. We conclude that the issues raised by Card, et al., upon further examination, do not alter the conclusions from our original paper, and in some cases even

reinforce those conclusions.

### Ngama, Yerima L.

**PD** 1991. **TI** An Empirical Examination of Absolute Purchasing Power Parity: Spain 1977-1988. **AU** Ngama, Yerima L.; Sosvilla-Rivero, Simon. **AA** University of Birmingham. **SR** University of Birmingham Department of Economics Discussion Paper: 91-08; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. **PG** 26. **PR** 2 pounds. **JE** F31, E31, C22. **KW** Exchange Rates. Price Index.

**AB** This paper examines the purchasing power parity (PPP) theory for the Spanish Peseta/U.S. Dollar and the Spanish Peseta/Deutschemark exchange rates, using both the consumer and the wholesale price indices. Since the non-stationary nature of the series invalidates the application of standard inference procedures, we apply the estimation and inference procedures developed by Phillips and Hansen (1990) for cointegration models. The results generally show that PPP does not hold. Furthermore, only for the case of the PTA/DM exchange rate and wholesale price indices do we find cointegration and an error correction representation. Our test of Granger causality indicates a (Granger) causal relationship both from prices to exchange rates and from exchange rates to prices.

### Nixon, Lucia

**TI** Restrictions on Medicaid Funding of Abortion: Effects on Pregnancy Resolutions and Birthweight. **AU** Currie, Janet; Nixon, Lucia; Cole, Nancy.

### Noh, Jaesun

**TI** Index-Option Pricing with Stochastic Volatility and the Value of Accurate Variance Forecasts. **AU** Engle, Robert F.; Kane, Alex; Noh, Jaesun.

**TI** A Test of Efficiency for the S&P 500 Index Option Market Using Variance Forecasts. **AU** Engle, Robert F.; Kane, Alex; Noh, Jaesun.

### Norris, Pippa

**PD** August 1993. **TI** The Social Background of Legislative Elites: Does it Matter? **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-25; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. **PG** 15. **PR** \$5.00. **JE** D70, D72. **KW** Political Elite. Social Biases.

**AB** Studies have commonly documented the social bias of the British political elite. It is well-known that Members of Parliament tend to be drawn from a privileged background, in terms of occupational class, education, gender and race, compared with the general electorate. What is less well-established is whether this social bias matters, for the attitudes and values of MPs, as well as for their role perceptions, and activities as legislators. The aim of this paper is to examine these issues based on data from the British Candidate Study in the 1992 election.

### O'Brien, Daniel P.

**TI** The Welfare Effects of Forbidding Discriminatory Discounts: A Secondary Line Analysis of Robinson-Patman. **AU** Shaffer, Greg; O'Brien, Daniel P.

**Obstfeld, Maurice**

PD November 1993. TI International Capital Mobility in the 1990's. AA University of California, Berkeley and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4534; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 67. PR \$5.00. JE F20, F21. KW International Capital Markets. Capital Mobility.

AB This paper surveys the performance of international capital markets and the literature on measuring international capital mobility. Three main functions of a globally integrated and efficient world capital market provide focal points for the analysis. First, asset-price arbitrage ensures that people in different countries face identical prices for a given asset. Second, to the extent that the usual market failures allow, people in different countries can pool risks to their lifetime consumption profiles. Third, new saving, regardless of its country of origin, is allocated toward the world's most productive investment opportunities. The paper evaluates the international capital market's performance of these roles by studying data on international interest-rate differences, international consumption correlations, international portfolio diversification, and the relations between national saving and investment rates. The conclusion is that while international capital mobility has increased markedly in the last two decades, international capital movements remain less free than intranational movements, even among the industrial countries.

**Ohanian, Lee E.**

TI Short-Run Independence of Monetary Policy Under Pegged Exchange Rates and Effects of Money on Exchange Rates and Interest Rates. AU Stockman, Alan C.; Ohanian, Lee E.

**Oliner, Stephen**

PD September 1993. TI New and Old Models of Business Investment: A Comparison of Forecasting Performance. AU Oliner, Stephen; Rudebusch, Glenn; Sichel, Daniel. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 141; Board of Governors of the Federal Reserve System Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. PG 29. PR no charge. JE E22, E27, C52, C53. KW Euler Equations. Forecast Performance.

AB Previous empirical evaluations of investment models have focused on the relative in-sample fit of various nonstructural models. Our evaluation extends this work along two dimensions. First, we augment the usual set of models with two Euler equations derived explicitly from dynamic optimization under rational expectations; one Euler equation is typical of those found in the investment literature, while the other embeds "time-to-build" lags that yield a richer dynamic structure. Second, we focus on out-of-sample forecast performance as the primary criterion of model evaluation. Our results indicate the traditional models dominate both Euler equations in forecasting investment. The inclusion of "time-of-building" lags only a small improvement over the basic Euler equations likely reflect inherent flaws in their economic structure.

**Orszag, Peter**

TI The Conditions of Life. AU Ilarionov, Andrei; Layard, Richard; Orszag, Peter.

**Overgaard, Per Baltzer**

PD November 1993. TI The Scale of Terrorist Attacks as a Signal of Resources. AA University of Aarhus. SR Aarhus Institute of Economics Memo: 1993-20; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. PG 26. PR no charge. JE C72, D74. KW Terrorism. Retaliation. Signaling.

AB We study terrorist-government conflicts with asymmetric information structures. The government is uncertain about the level of resources available to terrorists for use in violent attacks. The conflict is modeled as a signaling game where terrorist attacks serve as a signal of resources. Under full information, optimal government retaliation depends non-trivially on terrorist resources. With asymmetric information this gives terrorists an incentive to convey the message that resources are large in their attempt to soften retaliation. It follows that equilibrium attack levels of high resource terrorists must be distorted upwards to convey any information to the government. We also consider equilibria where attacks are uninformative of resources, but where the government softens its retaliation. In either case governments suffer under asymmetric information. Finally, we investigate how the flexibility of government responses affects the outcome of conflicts, and we assess the value of government intelligence gathering and (partial) government commitment.

**Papke, Leslie E.**

PD October 1993. TI Did 401(k) Plans Replace Other Employer Provided Pensions? AU Papke, Leslie E.; Petersen, Mitchell; Poterba, James M. AA Papke: Michigan State University and National Bureau of Economic Research. Petersen: University of Chicago and National Bureau of Economic Research. Poterba: Stanford University. SR National Bureau of Economic Research Working Paper: 4501; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 23. PR \$5.00. JE H55, G23. KW Pension Plans. 401(k) Plan.

AB This paper reports the findings from a new survey of firms that provide 401(k) plans for their employees. Our results suggest that few 401(k) plans replaced pre-existing defined benefit pensions plans, although a substantial fraction replaced previous defined contribution thrift and profit sharing plans. Our survey results also provide new evidence on patterns of 401(k). We find significant persistence in firm-level participation rates from one year to the next, which supports the view that 401(k) participants are not making marginal decisions of whether or not to contribute to the plan in a given month, or even year, but rather make long-term commitments to participate in these plans.

**Park, In-Uck**

PD September 1993. TI Generic Finiteness of Equilibrium Outcome Distributions for Sender-Receiver Cheap-Talk Games. AA University of Bristol. SR University of Bristol Economics Working Paper: 93/365; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN,

ENGLAND. PG 38. PR no charge. JE C72. KW Cheap Talk. Reduced Form Equilibrium.

AB This paper establishes the generic finiteness of equilibrium outcome distributions for Sender-Receiver cheap-talk games. An equilibrium in a Sender-Receiver cheap-talk game is said to be in reduced form if every message is used by at least one type and no two messages provoke the same response. It is shown that, for a generic set of utilities on outcomes, a Sender-Receiver cheap-talk game has a finite number of reduced form equilibria. A corollary is that, for generic utilities, the set of probability distributions over outcomes generated by equilibria is finite. Because of the identification of terminal nodes for utility purposes, Sard's theorem is not applicable in the way it was used in Kreps and Wilson (1982), and a structurally different proof strategy is developed. Some additional characterizations of the equilibria are obtained in the process of the proof.

#### Passmore, Wayne

PD November 1993. TI An Efficiency Model of Deposit Pricing and Rate Rigidity. AU Passmore, Wayne; Sparks, Roger. AA Passmore: Board of Governors of the Federal Reserve System. Sparks: Mills College. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-38; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 28. PR no charge. JE G21. KW Deposits. Deposit Rates.

AB The authors construct a model to explain why deposit interest rates are relatively rigid in response to changes in market interest rates. The model's key assumption is that banks are better informed than are depositors about the level of deposit services being supplied. The comparative static results of the model imply deposit rate rigidity that becomes more acute the larger the spread between market rates and deposit rates. The authors empirically estimate the model and its implication for rigidity, finding strong support for both.

#### Pattanaik, Prasanta K.

TI Revenue Risks, Risk Attitudes and the Optimal Output and Insurance Cover of a Competitive Firm. AU Ford, J. L.; Mpuku, Herrick C.; Pattanaik, Prasanta K.

PD 1991. TI Welfarism, Individual Rights and Game Forms. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-07; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 15. PR 2 pounds. JE D71, C72. KW Individual Rights. Pareto Criterion.

AB This paper investigates the problem of conflicts between individual rights and welfarism as represented by the Pareto criterion, when individual rights are formulated in terms of game forms rather than in the classical Sen fashion. It derives conditions for the possible emergence of such a conflict in the game form framework for individual rights.

TI On Measuring the Value of Life. AU Ford, J. L.; Pattanaik, Prasanta K.; Wei, Xiangdong.

#### Peng, Wensheng

PD 1991. TI Chaos, Nonlinearity and Monetary Aggregates. AA University of Birmingham. SR University of Birmingham Department of Economics

Discussion Paper: 91-02; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 19. PR 2 pounds. JE C82, C12, C32, E51. KW Deterministic Chaos. Monetary Aggregates.

AB There has been increasing interest among economists in testing for the presence of deterministic chaos and nonlinearity in empirical economic data. The paper applies the present commonly used testing procedures to the UK broad monetary aggregates - constructed both as simple sums and Divisia indices. Evidence of low dimension deterministic chaos was found in Divisia M sub 4, which means that the aggregate could be controlled by a small number of control variables. Furthermore, evidence of strong nonlinearity was found in all Divisia aggregates. This result, on the one hand, is consistent with the modern perception of money as an endogenous variable, and on the other hand, has important implications for econometric modeling, and monetary policy.

TI Shackle on Expectation, Investment, the Business Cycle and Economic Development. AU Ford, J. L.; Peng, Wensheng.

#### Perotti, Roberto

TI Income Distribution, Political Instability, and Investment. AU Alesina, Alberto; Perotti, Roberto.

#### Pesaran, M. Hashem

TI Cointegration and Direct Tests of the Rational Expectations Hypothesis. AU McAleer, M.; McKenzie, C. R.; Pesaran, M. Hashem.

TI Exchange Rate Unification, the Role of Markets and Planning in the Iranian Economic Reconstruction. AU Karshenas, M.; Pesaran, M. Hashem.

PD April 1993. TI Alternative Approaches to Estimating Long-Run Energy Demand Elasticities: An Application to Asian Developing Countries. AU Pesaran, M. Hashem; Smith, Ron. AA Pesaran: University of Cambridge and University of California, Los Angeles. Smith: Birkbeck College. SR University of Cambridge Department of Applied Economics Working Paper: 9308; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 27. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE C13, C33, O53, Q41. KW Panel Estimators. Pooled Estimators.

AB Long-run energy elasticities have been estimated using time-series for individual countries, cross-sections over countries and pooled data for panels of countries. This paper reviews what is known about the properties of these estimators, emphasizing the potentially misleading results that can be obtained by pooled estimators in dynamic heterogeneous panels. The issues are illustrated by an application to aggregate energy demand in ten Asian countries over the period 1973-1990. Although these results can only be tentative because of the problems caused by aggregation, they illustrate the methodological problems raised by the theoretical discussion.

PD May 1993. TI Cointegration and Speed of Convergence to Equilibrium. AU Pesaran, M. Hashem.; Shin, Y. AA Pesaran: University of Cambridge and University of California, Los Angeles. Shin: University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9311; Department of

Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 29. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE C32, C13, C15. KW Impulse Response Functions. Persistence Profiles.

AB This paper is concerned with the time profile of the effects of shocks on cointegrating relations in the context of a multivariate VAR(p) model with  $r$  cointegrating vectors. It is shown that for cointegrating relations the estimate of the persistence profile of a finite horizon is root-T consistent, and has a limiting normal distribution. The primary empirical motivation behind the paper is to provide a framework for comparing the relative speed with which the effects of shocks to the cointegrating relations converge to their long-run value of zero. The theoretical framework is applied to an exchange rate and interest rate data set and it is found that the persistence profile of the purchasing power parity relation converges to zero very slowly, while the persistence profile of the uncovered interest parity relation converges to zero reasonably quickly. However, the persistence profiles in the case of both relations are rather poorly estimated, raising important questions concerning the small sample precision of the estimates of the cointegrating relations.

PD July 1993. TI The Natural Rate Hypothesis and its Testable Implications. AU Pesaran, M. Hashem; Smith, Ron. AA Pesaran; University of Cambridge and University of California, Los Angeles. Smith; Birkbeck College. SR University of Cambridge Department of Applied Economics Working Paper: 9314; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 26. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE C12, E24, E32, E52. KW Natural Rate Hypothesis. Endogenous Policy.

AB This paper re-examines tests of the Natural Rate Hypothesis (NRH) which regress output (or unemployment) on a distributed lag of unanticipated money supply terms, "surprises," and a proxy for the natural rate. The paper argues (1) that the complex theoretical determinants of the natural rate are unlikely to be well represented by the simple proxies typical of the literature; (2) The "surprise" regressions do not constitute a valid representation of the Lucas, Sargent-Wallace NRH models on which they are supposed to be based; (3) if output is difference stationary, the "surprise" regressions are spurious and there are implications for the natural rate which have been ignored in the literature; and (4) if the economy is described by a Keynesian model with an optimizing government, the resulting reduced form equations will be indistinguishable from "surprise" regressions unless theory specifies some observable differences between government targets and natural rates for the output of the unemployed variable.

PD August 1993. TI Limited-Dependent Rational Expectations Models with Stochastic Thresholds. AU Pesaran, M. Hashem; Ruge-Murcia, F. J. AA Pesaran University of Cambridge and University of California, Los Angeles. Ruge-Murcia; University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9318; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 20. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE C13, C15, C24. KW Stochastic Bands.

Switching Regressions. Non-linear Models.

AB This paper extends previous research on the solution and estimation of limited-dependent rational expectations (LD-RE) models by considering the possibility of stochastic variations in the bounds. It is shown that the solution of the LD-RE model with a one-sided, stochastic band, exists and is unique when the coefficient of the expectational variable is less than one. In the case of a two-sided, stochastic band, the rational expectations solution exists for all the parameter values and is unique if the coefficient of the expectational variable is less than or equal to one. In addition, the paper develops a Full Information Maximum Likelihood procedure for the estimation of LD-RE models with stochastic bounds, and contains a number of Monte Carlo Experiments demonstrating the feasibility of the proposed estimation procedure and providing some evidence on the small sample properties of the estimators.

Pesendorfer, Wolfgang

TI The Swing Voter's Curse. AU Feddersen, Timothy J.; Pesendorfer, Wolfgang.

Petersen, Mitchell

TI Did 401(k) Plans Replace Other Employer Provided Pensions? AU Papke, Leslie E.; Petersen, Mitchell; Poterba, James M.

Pfann, Gerard A.

TI Asymmetric and Time-Varying Error-Correction: An Application to Labour Demand in the U.K. AU Burgess, Simon M.; Escribano, Alvaro; Pfann, Gerard A.

Polinsky, Mitchell A.

PD October 1993. TI Optimal Awards and Penalties when the Probability of Prevailing Varies Among Plaintiffs. AU Polinsky, Mitchell A.; Rubinfeld, Daniel L. AA Polinsky; Stanford University and National Bureau of Economic Research. Rubinfeld; University of California, Berkeley. SR National Bureau of Economic Research Working Paper: 4507; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 13. PR \$5.00. JE K40, K41. KW Litigation Costs. Lawsuits.

AB This article derives the optimal award to a winning plaintiff and the optimal penalty on a losing plaintiff when the probability of prevailing varies among plaintiffs. Optimality is defined in terms of achieving a specified degree of deterrence of potential injurers with the lowest litigation cost. Our main result is that the optimal penalty on a losing plaintiff is positive, in contrast to common practice in the United States. By penalizing losing plaintiffs and raising the award to winning plaintiffs (relative to what it would be if losing plaintiffs were not penalized), it is possible to discourage relatively low-probability-of prevailing plaintiffs from suing without discouraging relatively high-probability plaintiffs, and thereby to achieve the desired degree of deterrence with lower litigation costs. This result is developed first in a model in which all suits are assumed to go to trial and then in a model in which settlements are possible.

Porter, Richard C.

TI Different Environmental Services for Different Income Groups in LDC Cities: Second-Best Efficiency Arguments. AU Fischer, Carolyn; Porter, Richard C.

**Portney, Paul R.**

PD April 1993. TI Regulatory Review of Environmental Policy: The Potential Role of Health-Health Analysis. AU Portney, Paul R.; Stavins, Robert N. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-7; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 18. PR \$5.00. JE Q20, Q28. KW Environmental Protection. Environmental Policy. Welfare Analysis.

AB Rising demand for environmental protection coupled with sharply increasing costs for compliance are likely to lead to greater attention being given to the benefits and costs of environmental policies and programs. Economists have long argued that the use of an economic-efficiency criterion and its operational sibling, benefit-cost analysis, would be most appropriate for evaluating public policies. Because of statutory constraints limiting the use of cost information in setting standards and because of the recognized difficulty of monetizing all benefits, however, there has been interest in developing an evaluation criterion that focuses exclusively on benefits, and measures benefits in some physical rather than monetary unit. In recent years, health-health analysis (HHA) has been promoted by analysts both inside and outside of government as potentially satisfying this interest by positing that policies intended to protect human health ought to exhibit positive health benefits. We use the framework of welfare economics to examine HHA and its potential usefulness as a condition for evaluating environmental policies.

**Poterba, James M.**

TI Did 401(k) Plans Replace Other Employer Provided Pensions? AU Papke, Leslie E.; Petersen, Mitchell; Poterba, James M.

**Prasnikar, Vesna**

PD August 1993. TI Binary Lottery Payoffs: Do They Control Risk Aversion? AA Northwestern University and Univerza v Ljubljani. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1059; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 35. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE C91, C25. KW Expected Utility Maximization. Binary Lotteries. Compound Lotteries.

AB Considerable evidence has accumulated which shows that the choice behavior of individuals exhibits systematic departures from expected utility maximization. The focus of the paper is to develop some measures of the extent to which utility maximization remains a useful approximation. We do this by considering the extent to which individual choice behavior can be controlled, in the manner predicted by expected utility maximization nevertheless remains a useful approximation. We do this by considering the extent to which individual choice behavior can be controlled, in the manner predicted by expected utility theory, by experimental designs which employ binary lottery payoffs in the manner of Roth and Malouf (1979) and Berg et al. (1986). The results of this study suggest that the gross features of risk preference can be reliably implemented, albeit with a non-negligible amount of error. Some errors were found to be systematic and can be attributed to subjects who did not know how to calculate the expected probability of

winning the prize in a compound binary lottery. The knowledge of compound lotteries also played the role in determining the functional forms are easier to induce.

**Pratt, John**

PD July 1993. TI Willingness to Pay and the Concentration of Risk. AU Pratt, John; Zeckhauser, Richard. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-20; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 22. PR \$5.00. JE D80, D81, H80. KW Willingness to Pay. Risk. Preferences.

AB A wide range of government policies -- from health care to the environment, from product safety to biomedical research -- seek to reduce risks to human life. In a democratic society, expenditures on such policies should be directed by the preferences of the members. The metric therefore, at least most economists would now agree should be willingness to pay (WTP) to reduce the risk. It is often alleged that our society devoted an imbalance of resources towards concentrated risks, say treatment after the fact as opposed to prevention. How does aggregate WTP depend on the concentration of risk? The balance between two effect on high risk individuals -- "dead anyway" (implying they value dollars less, thus boosting WTP) and "high payment" (significant reduction costs reduce WTP due to an income effect)--gives the answer. WTP can rise, fall, or rise then fall with concentration. With complete contingent claims markets, WTP to reduce risk is independent of its distribution. When such markets are incomplete, government spending should be guided by corrected WTP, namely WTP multiplied by the ex post marginal utility of income.

**Pratten, Cliff**

PD May 1993. TI The Accuracy of Property Valuations. AA University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: AF7; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 21. PR \$10.00 (£5.00) checks payable to University of Cambridge. JE G12, M41, R31. KW Property Valuation. Land Value. Book Value.

AB The focus of the paper is the accuracy of valuations of property for inclusion in company balance sheets. The aggregate book value of land and buildings represented 220% of the total assets of UK companies at the end of 11989, so the accuracy of valuations is important. The paper surveys the evidence relating to the accuracy of property valuations and assesses the methods used to measure the accuracy of valuations. Although surveyors' valuations are not ideal, they are the best estimates of value available, as historical cost data provide a guide to contemporary values.

PD September 1993. TI Accounting for Property Assets in the Public and Private Sectors. AA University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9317; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 51. PR \$5.00 (£2.50), checks payable to University of Cambridge. JE M41, R31. KW Rents. Capital Charges.

AB The paper surveys the methods of accounting for property assets used in the private sector by 18 UK-based companies and used in the public sectors of five other countries including the USA, with a view to developing methods of

accounting for the UK public sector which would promote the efficient use of property. The effects of using different systems of charging for property - rents and capital charges - in the public sector are compared. The market for property and movement of rents are described.

### Prendergast, Canice

PD August 1993. TI Favoritism in Organizations. AU Prendergast, Canice; Topel, Robert H. AA University of Chicago and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4427; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 46. PR \$5.00. JE M12, L20, J53. KW Performance Evaluations. Organizations. Supervision.

AB Performance evaluations for workers are typically subjective impressions held by supervisors rather than easily quantifiable measures of output. We argue that perhaps the most important aspect of this is that it gives supervisors the opportunity to exercise their personal preference towards their employees in a way that is detrimental for performance both for incentive reasons and through misallocation of workers to jobs. We illustrate that firms will respond to this problem in a number of ways. First, they will make compensation less sensitive to performance, even when workers are risk neutral. Furthermore, firms will typically use bureaucratic procedures for allocating rewards, even though these are known to be ex post inefficient. In addition, firms may tie wages to jobs as a means of credibly rewarding the best performers. These organizational changes are used because directly monitoring supervisor's decisions is fraught with problems, among them the creation of "yes men," so that the indirect mechanisms described above are likely to be optimal responses to favoritism.

### Preston, Ian

TI Fiscal Anarchy in the U.K. Modelling Poll Tax Noncompliance. AU Besley, Timothy; Preston, Ian; Ridge, Michael.

### Pritchett, Lant

TI Good Policy or Good Luck? Country Growth Performance and Temporary Shocks. AU Easterly, William; Pritchett, Lant; Kremer, Michael; Summers, Lawrence.

### Psaradakis, Zacharias

PD September 1993. TI On the Power of Tests for Superexogeneity and Structural Invariance. AU Psaradakis, Zacharias; Sola, Martin. AA Psaradakis: University of Bristol. Sola: Birkbeck College and London Business School. SR University of Bristol Economics Working Paper: 93/366; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 25. PR no charge. JE C15, C22, C52, E43. KW Parameter Constancy. Monte Carlo Simulation. Term Structure.

AB This paper examines the finite-sample power of tests of structural invariance and superexogeneity hypotheses in econometric models with contemporaneous conditioning variables. We consider both direct parametric tests of superexogeneity, as well as indirect procedures based on temporal stability tests for the parameters of interest. Our Monte Carlo analysis reveals that both types of tests may lack

power in interesting classes of models. An empirical illustration investigates the superexogeneity of the short-term interest rate in a dynamic specification for the U.S. term structure.

TI An Analysis of Seasonality in the U.K. Equity Market. AU Clare, Andrew D.; Psaradakis, Zacharias; Thomas, Stephen H.

### Pulley, Lawrence B.

PD August 1993. TI Do Consumers Pay for One-Stop Banking? Evidence from a Non-Standard Revenue Function. AU Pulley, Lawrence B.; Berger, Allen N.; Humphrey, David B. AA Pulley: College of William and Mary. Berger: Board of Governors of the Federal Reserve System and Wharton Financial Institutions Center. Humphrey: Florida State University. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-30; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 23. PR no charge. JE G21, L89, D20. KW Banks. Scope Economies. Scale Economies.

AB Synergies in providing financial services can reduce costs due to joint production (cost economies of scope) or raise revenues due to joint consumption (revenue economies of scope). Cost economies of scope between bank deposits and loans were found to be small elsewhere. Revenue economies of scope are investigated here for the first time and found to be nonexistent over 1978-1990 for both small and large banks and for those on or off the revenue-efficient frontier. The lack of synergies between deposits and loans-where benefits are most likely to occur-suggests few synergies from an expansion of banking powers.

### Quiggin, J.

TI Theories of Choice Under Ignorance and Uncertainty. AU Kelsey, David; Quiggin, J.

### Rangan, Subramanian

PD September 1993. TI The Responses of U.S. Firms to Exchange Rate Fluctuations: Piercing the Corporate Veil. AU Rangan, Subramanian; Lawrence, Robert Z. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-29; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 21. PR \$5.00. JE F31, F23. KW Exchange Rates. Export Prices. Price to Market.

AB Empirical studies have typically found that U.S. firms fully pass through changes in their domestic costs into their exports prices and keep their profit margins constant. By contrast, foreign firms are found to behave more strategically. They "price to market" and shade their responses, allowing their profit margins to cushion domestic cost changes. In this paper we argue that because U.S. multinationals account for most U.S. manufactured exports, a significant share of U.S. export prices do not actually reflect the prices paid by foreign customers. Instead, they reflect the internal, intrafirm prices at which products are transferred by U.S. multinationals to their foreign subsidiaries. We analyze the responses of these subsidiaries price cost margins to exchange rate changes and find compelling evidence that in their final sales, they actually do price to market. We also find that the sourcing decisions of U.S. foreign subsidiaries are as responsive to changes in U.S. costs as are the purchasing decisions of final buyers of U.S. exports. We find that, when the dollar declined during the latter

half of the 1980's, intra-firm exports were as responsive as arms length exports in the same industry.

#### Rasmussen, Bo Sandemann

TI Progressive Income Taxation and Labour Market Incentives. AU Andersen, Torben M.; Rasmussen, Bo Sandemann.

#### Rebelo, Sergio

TI Growth Effects of Flat-Rate Taxes. AU Stokey, Nancy L.; Rebelo, Sergio.

TI Fiscal Policy and Economic Growth: An Empirical Investigation. AU Easterly, William; Rebelo, Sergio.

#### Redish, Angela

TI A Small Open Economy in Depression: Lessons from Canada in the 1930's. AU Betts, Caroline M.; Bordo, Michael D.; Redish, Angela.

#### Rey, Patrick

PD October 1993. TI Short-Term Contracts as a Monitoring Device. AU Rey, Patrick; Stiglitz, Joseph E. AA Rey: Centre de Recherche en Economie et Statistique. Stiglitz: Stanford University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4514; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 34. PR \$5.00. JE G24, G20, E22. KW Debt Contracts. Investment. Monitoring.

AB This paper focuses on two separate problems. The first is that frequently, the most profitable use of funds involves long-term investments, which militates for long-term debt contracts. The second problem is to monitor the investor's use of funds, as exemplified by the U.S. S&L saga, and we argue that short-term debt provides investors, who can withdraw their funds, with a real threat over firms. We show that short-term investors have both desirable incentives to exert control and invest in monitoring, and that this monitoring concern provides an explanation of the often lamented disparity between the maturity of banks' assets and liabilities. We also explore in detail the trade-off between long-term and short-term debt, including the possibility of multiple contract and of priority rules.

#### Ridge, Michael

TI Fiscal Anarchy in the U.K. Modelling Poll Tax Noncompliance. AU Besley, Timothy; Preston, Ian; Ridge, Michael.

#### Robbie, Ken

TI Failure Buy-Outs and Buy-Out Failure. AU Wright, Mike; Wilson, Nick; Robbie, Ken; Ennew, Chris.

#### Rodrick, Dani

PD August 1993. TI Trade and Industrial Policy Reform in Developing Countries: A Review of Recent Theory and Evidence. AA Columbia University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4417; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 56. PR \$5.00. JE F10, F13. KW Trade. Industrial Policy Reform.

AB This paper reviews recent theory and evidence on trade and industrial policy reform in developing countries. First, the theoretical and empirical basis of the rationales for policy reform are discussed. Next, two sources of heterodoxy are identified and evaluated: (a) the East Asian experience with interventionist industrial policies; (b) recent models of imperfect competition. The survey then turn on strategic issues in reform, and discusses the theory of piecemeal reform, tax or tariff uniformity, credibility, political economy, and interactions with stabilization policy. The penultimate section reviews the available evidence of the consequences of recent policy reform.

PD August 1993. TI Trade Liberalization in Disinflation. AA Columbia University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4419; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 26. PR \$5.00. JE F10, F13. KW Trade. Trade Liberalization. Stabilization.

AB There exists near-consensus among professional economists on the desirability of achieving macroeconomic stabilization prior to the removal of microeconomic distortions. Yet this advice was completely disregarded in some of the most important cases of reform during the last decade -- Bolivia and Mexico since 1985, Poland since 1990, Argentina since 1991, for example. In these and many other cases, radical trade liberalization measures were put in place, or existing programs speeded up, in conjunction with macroeconomic stabilization packages. In this paper I revisit this issue by focussing on recent liberalizations in Latin America. I argue that the theoretical case for the existence of a policy dilemma in exchange-rate management when trade liberalization is implemented simultaneously with stabilization policies is weaker than is usually presupposed. A commitment to a pegged exchange rate can, if credible, actually solve rather than intensify the potential conflict between trade liberalization, and exchange-rate stability. However, the credibility of disinflation may be endangered by early liberalization.

#### Rogers, L. C. G.

PD February 1993. TI Geometric Indices: A Theory of Hedging and Econometric Analysis with Application to the U.K. Stock Market. AU Rogers, L. C. G.; Satchell, Stephen E.; Yoon, Youngjun. AA Rogers: University of London. Satchell: University of Cambridge and Birkbeck College. Yoon: University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9319; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 19. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE G11. KW Geometric Index. Fair Price. Semi-Martingale Process.

AB In this paper the authors describe how to hedge a contract written on a specific geometric index, and calculate the fair (no-arbitrage) price of the contract in a log-Brownian complete markets framework; results are also discussed in the more general context of semi-martingale price processes. Tests for arbitrage violations are discussed and carried out on daily U.K. data for the FT30 Index from January 1988 to December 1991. The procedure seems to work well and be robust to jumps in a sense made precise in the paper.



**Rogerson, William P.**

PD July 1993. TI Inter-Temporal Cost Allocation and Managerial Incentives. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1060; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 39. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D82. KW Cost Allocation, Managerial Incentives, Depreciation.

AB This paper provides a formal analysis of how managerial investment incentives are affected by alternative allocation rules when managerial compensation is based on accounting measures of income which include allocations for investment expenditures. The major result is that a unique allocation rule exists, called the relative marginal benefits (RMB) rule, which always induces the manager to choose the efficient investment, no matter how the manager values his own personal cash flows from wage compensation over time and no matter what wage schedule is in place (so long as wages are weakly increasing each period's income). That is, the same allocation rule works for every possible managerial utility function over wage payments and every monotone wage function over accounting incomes. Thus the firm can choose an allocation rule which induces efficient investment choices without knowing the manager's preferences. Furthermore, since the same rule works for every monotone wage schedule, the firm is left a "degree of freedom" to choose the wage schedule, to solve some other incentive problem. In addition to demonstrating the optimality of the RMB rule and describing its properties, the paper considers how currently used allocation rule qualitatively affect manager's investment incentives.

**Romer, Christina D.**

PD October 1993. TI Credit Channel or Credit Actions? An Interpretation of the Postwar Transmission Mechanism. AU Romer, Christina D.; Romer, David H. AA University of California, Berkeley and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4485; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 40. PR \$5.00. JE E58, E51, G21. KW Monetary Policy, Credit Channel, Federal Reserve.

AB This paper shows that the disproportionate impact of tight monetary policy on banks' ability to lend is largely the consequence of Federal Reserve actions aimed at reducing bank loans directly, rather than an inherent feature of the monetary transmission mechanism. A detailed examination of nine postwar episodes of contractionary monetary policy shows that while short-term interest rates always rose in response to tight policy, banks typically found ways of maintaining lending despite the falls in reserves. Banks' ability to lend was particularly affected by tight policy only when the Federal Reserve undertook actions to restrain bank lending directly. Also, simple regressions show that Federal Reserve credit actions have large and significant effects on the composition of external finance between bank loans and commercial paper and on the spread between the prime bank loan rate and the commercial paper rate, and that a bank credit channel of monetary transmission is not needed to explain the movements in these variables in response to tight policy.

**Romer, David H.**

TI Credit Channel or Credit Actions? An Interpretation of the Postwar Transmission Mechanism. AU Romer, Christina D.; Romer, David H.

**Rose, Andrew K.**

PD October 1993. TI European Exchange Rate Credibility Before the Fall. AU Rose, Andrew K.; Svensson, Lars E. O. AA Rose: University of California and National Bureau of Economic Research. Svensson: Stockholm University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4495; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE F31, F33. KW Credibility, Exchange Rates, European Monetary System.

AB Realignment expectations which measure exchange rate credibility are analyzed for European exchange rates, using daily financial data since the inception of the EMS. It is difficult to find economically meaningful relationships between realignment expectations and macroeconomic variables, although there are signs that lower inflation improves credibility. Statistically, many movements to realignment expectations are common to ERM participants. There were few indications of poor ERM credibility before late August 1992; the dimensions of the currency crisis of September 1992 appear to have taken both policy-makers and private agents largely by surprise.

TI Fixing Exchange Rates: A Virtual Quest for Fundamentals. AU Flood, Robert P.; Rose, Andrew K.

**Rosen, Harvey S.**

TI Sticking it Out: Entrepreneurial Survival and Liquidity Constraints. AU Holtz-Eakin, Douglas; Joulfaian, David; Rosen, Harvey S.

TI Entrepreneurial Decisions and Liquidity Constraints. AU Holtz-Eakin, Douglas; Joulfaian, David; Rosen, Harvey S.

**Rosen, Richard J.**

PD September 1993. TI What Goes Up Must Come Down? Asymmetries and Persistence in Bank Deposit Interest Rates. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-36; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 26. PR no charge. JE G21, E51, E43. KW Banking, Interest Rates.

AB This paper contains a model of price setting in the presence of heterogeneous customers to explain why bank interest rates seem to respond sluggishly, if at all, to some extended movements in market interest rates but not to others. The model generates asymmetric price stickiness. Price (the bank interest rate) is likely to change only slightly with cost (the market interest rate) changes when the price-cost margin is already big and to be responsive when the price-cost margin is relatively small. The model is tested using data on interest rates offered on a variety of bank deposit rates during 1984-1992. The empirical model subsumes earlier work in the area, and the results strongly support the theoretical model.

**Rossi, Peter E.**

TI On the Optimal Taxation of Capital Income. AU Jones, Larry E.; Manuelli, Rodolfo E.; Rossi, Peter E.

**Rostowski, Jacek**

PD July 1993. TI The Implications of Rapid Private Sector Growth in Poland. AA University of London, London School of Economics, and Centre for Research into Communist Economies, London. SR London School of Economics Centre for Economic Performance Discussion Paper: 159; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 25. PR no charge. JE O52, O47. KW Economic Transition. Balcerowicz Plan. Macroeconomic Stabilization.

AB Three phases in the growth of the private sector in Poland since 1985 are identified: until the end of 1989, distorted and slow growth; 1990 rapid service sector development; and from 1991 rapid balanced growth. Poland has achieved massive private sector development with minimal privatization of state enterprises: the key cause has been macroeconomic stabilization. Very small availability of credit has not prevented this rapid growth, suggesting the unimportance of credit and financial markets in the early years of transition.

**Rotemberg, Julio J.**

PD October 1993. TI Dynamic General Equilibrium Models with Imperfectly Competitive Product Markets. AU Rotemberg, Julio J.; Woodford, Michael. AA Rotemberg: Massachusetts Institute of Technology and National Bureau of Economic Research. Woodford: University of Chicago and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4502; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 47. PR \$5.00. JE D43, D50, E32, E10. KW Imperfect Competition. Growth Models. Business Cycles.

AB This paper discusses the consequences of introducing imperfectly competitive product markets into an otherwise standard neoclassical growth models. We pay particular attention to the consequences of imperfect competition for the explanation of fluctuations in aggregate economic activity. Market structures considered include monopolistic competition, the "customer market" model of Phelps and Winter, and the implicit collusion model of Rotemberg and Saloner. Empirical evidence relevant to the numerical calibration of imperfectly competitive models is response to several kinds of real shocks, including technology shocks, shocks to the level of government purchases, and shocks that change individual producers' degree of market power. It also discusses the role of imperfect competition in allowing for fluctuations due solely to self-fulfilling expectations.

**Rubinfeld, Daniel L.**

TI Optimal Awards and Penalties when the Probability of Prevailing Varies Among Plaintiffs. AU Polinsky, Mitchell A.; Rubinfeld, Daniel L.

**Rubinstein, Ariel**

PD September 1993. TI Naive Strategies in Zero-Sum Games. AU Rubinstein, Ariel; Tversky, Amos. AA Rubinstein: Tel-Aviv University and Princeton University. Tversky: Stanford University. SR Tel-Aviv

Sackler Institute of Economic Studies Working Paper: 17/93; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, ISRAEL. PG 10. PR no charge. JE C70, C90. KW Zero-Sum Games. Strategic Reasoning. Experiments.

AB We studied people's choices in some simple zero-sum games. In the Treasure Game, the chooser hides a "treasure" in one of four locations and the guesser has to find it. In the Mine Game, the chooser places a "mine" in one of four locations and the guesser has to avoid it. In these games, where the players do not wish to be predictable, both choosers and guessers tended to follow the naive strategy favoring the least salient location rather than the unique equilibrium strategies of choosing each location with equal probability. For comparison, we also studied a coordination game in which one player seeks a "message" placed by the other in one of the locations, and both players are rewarded if the message is found. In this game, where the players wish to be predictable, both players favored the most salient location, as expected.

**Rudebusch, Glenn**

TI New and Old Models of Business Investment: A Comparison of Forecasting Performance. AU Oliner, Stephen; Rudebusch, Glenn; Sichel, Daniel.

**Ruge-Murcia, F. J.**

TI Limited-Dependent Rational Expectations Models with Stochastic Thresholds. AU Pesaran, M. Hashem; Ruge-Murcia, F. J.

**Ruggles, Patricia**

TI When do Women Use AFDC & Food Stamps? The Dynamics of Eligibility vs. Participation. AU Blank, Rebecca M.; Ruggles, Patricia.

**Runkle, David E.**

TI On the Relation Between the Expected Value and the Volatility of the Nominal Excess Return on Stocks. AU Glosten, Lawrence R.; Jagannathan, Ravi; Runkle, David E.

**Rustichini, Aldo**

TI Better Late Than Early: Vertical Differentiation in the Adoption of a New Technology. AU Dutta, Prajit K.; Rustichini, Aldo; Lach, Saul.

**Rutherford, Thomas F.**

TI Anti-Competitive and Rent-Shifting Aspects of Domestic-Content Provisions in Regional Trade Blocks. AU Lopez-de-Silanes, Florencio; Markusen, James R.; Rutherford, Thomas F.

TI Discrete Plant-Location Decisions in an Applied General-Equilibrium Model of Trade Liberalization. AU Markusen, James R.; Rutherford, Thomas F.

**Rutkowski, Jan**

PD August 1993. TI Wage Determination in Historically Planned Economies: The Case of Poland. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 164; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 66. PR no charge. JE P23, P21. KW Communism. Wage

**Setting, Rent Sharing.**

AB This paper argues that in a communist economy, especially in its market socialism version, wages are set in a similar way as in a market economy. Even if the planning center is involved in the wage setting process, it cannot set wages arbitrarily, but has to simulate market mechanisms in order to achieve minimum efficiency in the allocation of labor. Wage differences are likely to result not only from differences in human capital or working conditions but also, like in the market economies, from rent-sharing. Rent-sharing is likely to occur, since in institutional setting of market socialism there is a scope for both wage bargaining and efficiency wages considerations. However, similar mechanisms of wage determination in both economic systems do not necessarily lead to the same wage structure as socialism generates different than capitalism distribution of rents over industries as well as the rents come from different sources. The argument is supported by empirical evidence.

**Salles, Maurice**

TI On Two Classes of Differentiable Inequality Measures.  
AU Barrett, C. R.; Salles, Maurice.

TI On a Generalization of the Gini Coefficient.  
AU Barrett, C. R.; Salles, Maurice.

**Salmon, Mark**

TI Polynomially Cointegrated Systems and Their Representations; A Synthesis. AU Haldrup, Niels; Salmon, Mark.

**Samiei, H.**

TI The Dollar-Pound Forward Exchange Rate, 1919-1939.  
AU Kitson, M.; Samiei, H.; Solomou S.

**Samuelson, Larry**

TI Is There Always a "Right" Extensive Form?  
AU Mailath, George J.; Samuelson, Larry; Swinkels, Jeroen M.

**Satchell, Stephen E.**

TI Geometric Indices: A Theory of Hedging and Econometric Analysis with Application to the U.K. Stock Market. AU Rogers, L. C. G.; Satchell, Stephen E.; Yoon, Youngjun.

PD April 1993. TI Some Statistics for Testing the Influence of the Number of Transactions on the Distributions of Returns. AU Satchell, Stephen E.; Yoon, Youngjun. AA Satchell: University of Cambridge and University of London. Yoon: University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9307; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 14. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE C52, G12.. KW Asset Pricing, Transactions.

AB In this paper the authors consider the compound log normal asset price distribution in the case where the number of jumps is observed. In this case the model reduces to the price-transaction model of Harris. Test procedures for the model are developed and applied to some British companies. The results show that the number of transactions influences both the conditional mean and variance of the share price distribution.

**Scharfstein, David**

TI The Choice Between Public and Private Debt: An Analysis of Post-Deregulation Corporate Financing in Japan.  
AU Hoshi, Takeo; Scharfstein, David; Kashyap, Anil K.

**Schauer, Frederick**

PD August 1993. TI On the Degree of Confidence for Adverse Decisions. AU Schauer, Frederick; Zeckhauser, Richard. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-27; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 23. PR \$5.00. JE D70, K14. KW Criminal Law, Decisionmaking.

AB In a criminal trial the prosecution will not prevail unless it has proved all of the elements of its case beyond a reasonable doubt. And so when an individual is accused of wrongdoing outside of the criminal process, as when teachers and politicians are charged with sexual harassment and when employees in the public and private sectors are charged with financial improprieties, people often assume that a similarly stringent standard of proof is based on those charges. Yet this easy transfer from the model of the criminal law to other decisionmaking settings is mistaken. When the transcendent value of freedom from criminal incarceration is absent, and when certain other social values are present, the questions of social epistemology change, and probabilities of "guilt" less than those associated with the social epistemology change, and probabilities of "guilt" less than those associated with the "beyond a reasonable doubt" standard, perhaps little more than a mere possibility, can often be socially, statistically, and morally legitimate bases for adverse decisions. Relatedly, although there are sound moral and prudential reasons for the criminal law's refusal to cumulate multiple low-probability accusations, the reasons for such refusal are again often inapt in other settings, and taking adverse decisions based on the cumulation of multiple low-probability charges is seen to be justified both morally and mathematically.

**Scherer, F. M.**

PD September 1992. TI Lagging Productivity Growth; Measurement, Technology, and Shock Effects. AA Harvard University. SR John F. Kennedy School of Government Faculty Research Working Paper: R93-4; Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. PG 25. PR \$5.00. JE O30, O40. KW Labor Productivity, Productivity Growth.

AB This paper explores changes over time in the labor productivity growth record of 447 four-digit U.S. manufacturing industries and investigates some reasons for productivity growth patterns during the 1970's and 1980's. What conclusion one reaches about whether growth was restored during the 1980's is sensitive to how the important computer industry is handled, given the change to "hedonic" measurement techniques for computers. With or without computers, the growth of output per unit of labor input recovered somewhat during the 1980's, but the change was modest when the computer industry is excluded. There is no evidence that technological innovation, measured by private-sector research and development expenditures, lost its ability to drive productivity growth. There was a striking tendency for industries with unusually high energy input intensities. Indeed, productivity growth in the best-performing quartile of industries was higher in 1973-78 than in 1978-88. The recovery

of productivity growth in energy-intensive industries during 1978-88 contributed importantly to the improvement of aggregate growth measures. There is no systematic evidence of unusual productivity growth during the 1980's in industries shocked by rapidly rising imports.

**TI** *Rewriting History: The Early Sherman Act Monopolization Cases.* AU Comanor, William S.; Scherer, F. M.

**PD** April 1993. **TI** *Pricing, Profits and Technological Progress in the Pharmaceutical Industry.* AA Harvard University. **SR** John F. Kennedy School of Government Faculty Research Working Paper: R93-6; Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. **PG** 31. **PR** \$5.00. **JE** L51, L65, I11, I18. **KW** Pharmaceuticals. Medicine. Drug Prices. Generic Drugs.

**AB** This paper analyzes recent U.S. government policy initiatives premised in part upon the belief that pharmaceutical product prices and profits have been excessive. It shows that widely publicized criticisms are not completely accurate, since government drug price indices are biased on the side of revealing more price increases than actually occurred, and standard accounting measures overstate returns on investment. Nevertheless, there is evidence that on average the drug industry realized supra-normal profit returns during the 1970's and 1980's. Those returns were highly skewed; a few "blockbuster" drugs fared very well, while most new products barely covered, or failed to cover, their R&D costs. Why generic substitutes induce little price erosion for branded products is examined. Price controls or profit regulation that focus mainly on the blockbuster drugs would probably discourage investment in research and development and slow the rate of product innovation. Profit erosion is likely to occur in any event as generic substitution increases with the growth of health maintenance organizations. The paper also analyzes the reasons why lower pharmaceutical product prices are commonly encountered outside the United States. Many nations regulate drug prices; many others (and especially less-developed countries) provide only limited patent protection. The United States government has brought pressure to bear on low-protection nations, seeking to have them strengthen their patent laws. Such a policy change might compensate in part for lower profits in the United States due to price or profit regulation, but only by imposing significant welfare losses upon less-developed nations.

### Schmeidler, David

**TI** *Case-Based Knowledge Representation: An Expository Note.* AU Gilboa, Itzhak; Schmeidler, David.

### Schuh, Scott

**TI** *Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts.* AU Davis, Steven J.; Haltiwanger, John; Schuh, Scott.

### Schwartz, Anna J.

**TI** *Could Stable Money Have Averted the Great Contraction?* AU Bordo, Michael D.; Choudhri, Ehsan U.; Schwartz, Anna J.

### Scott, Andrew

**TI** *A Theory of Economic Fluctuations: Increasing Returns and Temporal Agglomeration.* AU Acemoglu, Daron; Scott,

Andrew.

### Scott, Henry G.

**PD** March 1992. **TI** *Liberalization and Food Security: A Specific Factor Model.* AA University of Birmingham. **SR** University of Birmingham Department of Economics Discussion Paper: 92-08; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. **PG** 15. **PR** 2 pounds. **JE** O11, O18, D31, I31. **KW** Food Prices. Rural Workers.

**AB** This paper uses a simple specific factor model to consider the implications of a rise in the price of food resulting from liberalization for the food security of rural workers. It is argued that, with reasonable estimates of the key parameters, the consequent rise in wages may be sufficient to offset the effect of the increase in the price of food in spite of the high proportion of income that is spent on food by the rural poor. This provides some rationale for one of the main conclusions of a major study sponsored by the World Bank: that the income distribution effects of liberalization have been small. It is further suggested that there is less likely to be an adverse impact on food security arising from liberalization when there is a minimum urban wage which is eroded by the rise in the price of food. Under these circumstances the liberalization is likely to reduce Harris-Todaro type unemployment.

**PD** June 1992. **TI** *A Simple Model of Insurrection and Regime Security: Alternative Perspectives.* AA University of Birmingham. **SR** University of Birmingham Department of Economics Discussion Paper: 92-15; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. **PG** 21. **PR** 2 pounds. **JE** D70, D72, H56. **KW** Rebellion. Military Expenditure. Exploitation.

**AB** A simple model is developed in which the rulers of a regime attempt to maximize their own income subject to the constraint created by the tendency of the general population to rebel. Alternative perspectives in which the population may be either provoked or deterred by the army are examined. In this model a Pareto optimal solution with a high and reasonably egalitarian income distribution is attainable if the citizens are tolerant of modest levels of exploitation by the rulers but vigorously resist excessive exploitation. The rulers of a regime in which the army is effective in deterring insurrection have incentives to exploit their citizens and may be less secure than regimes with less effective armies.

### Senaoana, P. M.

**PD** 1991. **TI** *Shadow Price of Foreign Exchange in Lesotho.* AA University of Birmingham. **SR** University of Birmingham Department of Economics Discussion Paper: 91-18; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. **PG** 19. **PR** 2 pounds. **JE** F31, E22. **KW** Foreign Exchange. Investment.

**AB** This paper derives the shadow price of foreign exchange for Lesotho using an extended version of the UNIDO model. The UNIDO formula is extended by incorporating the impact of foreign exchange on investment, and the shadow price of investment for Lesotho is then estimated using this revised formula.

**TI** *The Price of Water Under the Lesotho Highlands Water Project.* AU Barrett, C. R.; Senaoana, P. M.

**Shaffer, Greg**

PD October 1993. TI The Welfare Effects of Forbidding Discriminatory Discounts: A Secondary Line Analysis of Robinson-Patman. AU Shaffer, Greg; O'Brien, Daniel P. AA Shaffer: University of Michigan. O'Brien: U.S. Department of Justice. SR University of Michigan Center for Research on Economic and Social Theory, (CREST), Working Paper: 93-24; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. PG 24. PR \$4.00; payable to the Department of Economics. JE L14, D42, L81, L42. KW Intermediate Goods. Price Discrimination. Bargaining Power.

AB We examine the welfare effects of forbidding price discrimination in intermediate goods markets when firms can bargain over terms of their nonlinear supply contracts. In particular, our focus is on secondary line injury to competition under three interpretations of what it means to forbid price discrimination. We find that in each case, forbidding discriminatory discounts renders retailer bargaining power useless in mitigating manufacturer market power. As a result, all retailers end up paying higher input prices, and all retail prices rise. We show by example that the welfare loss can be substantial.

**Shah, Atul K.**

PD October 1993. TI How Professionals Actively Undermine Rule-Based Regulation - A Case Study of Financial Engineering in the UK Convertibles Market. AA Bristol University. SR University of Bristol Economics Working Paper: 93/362; Department of Economics, University of Bristol, Alfred Marshall Building, 8 Woodland Road, Bristol BS8 1TN, ENGLAND. PG 13. PR no charge. JE M41, G28, L84. KW Accounting Regulation. Creative Accounting. Professionals.

AB Hitherto little attention has been devoted in the accounting literature to the deliberate undermining of rule-based regulations, despite suspicions of its presence. Academic and regulatory effort has concentrated more on developing conceptual and technical solutions than on identifying the cause of the problem. This article provides detailed evidence of the activities of legal, accounting and finance professionals in the undermining of regulations. A case study of the role of professionals in the financial engineering of convertibles is presented and analyzed. It shows how avoidance schemes could not be implemented without cooperation from the very institutions and professional bodies designed to uphold the rules - lawyers and accountants. For rule-based regulation to be effective, rather than developing more conceptual solutions or better rules and enforcement, it is argued that attention should focus on regulating the avoidance activities of these professionals.

**Shell, Karl**

TI Further Evidence of the Necessity of Sunspots. AU Garratt, Rod; Shell, Karl.

**Shepard, Andrea**

TI Dynamic Pricing in Retail Gasoline Markets. AU Borenstein, Severin; Shepard, Andrea.

**Shin, Y.**

TI Cointegration and Speed of Convergence to Equilibrium. AU Pesaran, M. Hashem.; Shin, Y.

**Sichel, Daniel**

TI New and Old Models of Business Investment: A Comparison of Forecasting Performance. AU Oliner, Stephen; Rudebusch, Glenn; Sichel, Daniel.

**Simmons, Beth**

TI International Economics and Domestic Politics: Notes on the 1920's. AU Eichengreen, Barry; Simmons, Beth.

**Simpson, Robert**

TI The TUC's Bridlington Principles and Inter-Union Competition. AU Elgar, Jane; Simpson, Robert.

**Skinner, Jonathan**

TI The Importance of Precautionary Motives in Explaining Individual and Aggregate Saving. AU Hubbard, R. Glenn; Skinner, Jonathan; Zeldes, Stephen P.

**Slaughter, Matthew J.**

TI Trade and U.S. Wages: Great Sucking Sound or Small Hiccup! AU Lawrence Robert Z.; Slaughter, Matthew J.

**Smith, Ron**

TI Alternative Approaches to Estimating Long-Run Energy Demand Elasticities: An Application to Asian Developing Countries. AU Pesaran, M. Hashem; Smith, Ron.

TI The Natural Rate Hypothesis and its Testable Implications. AU Pesaran, M. Hashem; Smith, Ron.

**Sola, Martin**

TI On the Power of Tests for Superexogeneity and Structural Invariance. AU Psaradakis, Zacharias; Sola, Martin.

**Solnik, Bruno**

TI The World Price of Foreign Exchange Risk. AU Dumas, Bernard; Solnik, Bruno.

**Solomou S.**

TI The Dollar-Pound Forward Exchange Rate, 1919-1939. AU Kitson, M.; Samiei, H.; Solomou S.

**Sosvilla-Rivero, Simon**

TI An Empirical Examination of Absolute Purchasing Power Parity: Spain 1977-1988. AU Ngama, Yerima L.; Sosvilla-Rivero, Simon.

**Sparks, Roger**

TI An Efficiency Model of Deposit Pricing and Rate Rigidity. AU Passmore, Wayne; Sparks, Roger.

**Stavins, Robert N.**

TI Regulatory Review of Environmental Policy: The Potential Role of Health-Health Analysis. AU Portney, Paul R.; Stavins, Robert N.

PD May 1993. TI Transaction Costs and the Performance of Markets for Pollution Control. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-14; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 34. PR \$5.00. JE D45, Q20, Q28. KW Pollution Control. Tradeable Permits. Environmental Policy.

**AB** Tradeable-permit systems are at the center of current interest and activity in market-based reforms of environmental policy, because these systems can offer significant advantages over conventional approaches to pollution control. Unfortunately, claims made for their relative cost-effectiveness have often been exaggerated. Transaction costs, which are ubiquitous in these markets, reduce trading levels and increase abatement costs. Furthermore, in some cases, equilibrium permit allocations and hence aggregate control costs are sensitive to initial permit distributions providing an efficiency justification for politicians' typical focus on permit distribution mechanisms. These and other findings are consistent with available empirical evidence on the performance of pollution-control markets.

**PD** June 1993. **TI** Trading in Greenhouse Permits: A Critical Examination of Design and Implementation Issues. **AU** Stavins, Robert N.; Hahn, Robert W. **AA** Harvard University. **SR** Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-15; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. **PG** 34. **PR** \$5.00. **JE** Q45, Q20, Q28. **KW** Greenhouse Gas. Tradeable Permits. Policy Instruments.

**AB** The desirability of taking immediate action to curb greenhouse gas emissions may be open to question, but it is important to begin developing policy options for addressing global climate change issues. This paper explore the possibility of using tradeable property rights to limit the level of greenhouse gases in the atmosphere. Although trading in greenhouse-gas permits has the potential to achieve aggregate reductions in emissions at least cost, there are many practical problems of design and implementation. We propose a set of criteria by which these and other policy instruments can be assessed, review conventional regulatory approaches, introduce the theory behind tradeable permit systems, and examine actual experiences with these systems. In the context of global climate change, we focus on necessary conditions for successful permit markets, highlight crucial design issues, and compare tradeable permits with charge mechanisms.

**TI** The Energy Paradox and the Diffusion of Conservation and Technology. **AU** Jaffe, Adam B.; Stavins, Robert N.

### Stiglitz, Joseph E.

**TI** Short-Term Contracts as a Monitoring Device. **AU** Rey, Patrick; Stiglitz, Joseph E.

**TI** Information and Economic Efficiency. **AU** Arnott, Richard; Greenwald, Bruce; Stiglitz, Joseph E.

### Stockman, Alan C.

**PD** November 1993. **TI** Short-Run Independence of Monetary Policy Under Pegged Exchange Rates and Effects of Money on Exchange Rates and Interest Rates. **AU** Stockman, Alan C.; Ohanian, Lee E. **AA** Stockman: University of Rochester and National Bureau of Economic Research. Ohanian: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 4517; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** \$5.00. **JE** E52, E58, F31. **KW** Monetary Independence. Pegged Exchange Rates. Exchange Rates.

**AB** Economists generally assert that countries sacrifice monetary independence when they peg their exchange rates. At the same time, central bankers frequently assert that pegging an

exchange rate does not does not eliminate the independence of monetary policy. This paper examines the effects of money-supply changes on exchange rates, interest rates, and production in an optimizing two-country model in which some sectors of the economy have predetermined nominal prices in the short run and other sectors have flexible prices. Money-supply shocks have liquidity effects both within and across countries and induce a cross-country real-interest differential. The model predicts that liquidity effects are highly non-linear and are not likely be captured well empirically by linear models, particularly those involving only a single country. The most striking implication of the model is that countries have a degree of short-run independence of monetary policy even under pegged exchange rates.

### Stokey, Nancy L.

**PD** August 1993. **TI** Growth Effects of Flat-Rate Taxes. **AU** Stokey, Nancy L.; Rebelo, Sergio. **AA** Stokey: University of Chicago. Rebelo: University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4426; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$5.00. **JE** O40, H20. **KW** Tax Reform. Growth Effects. Endogenous Growth.

**AB** Recent estimates of the potential growth effects of tax reform vary widely, ranging from zero (Lucas 1990) to eight percentage points (Jones, Manuelli, and Rossi 1993). Using an endogenous growth model, we assess which model features and parameter values are important for determining the quantitative impact of tax reform. We find that the critical parameters are factor shares depreciation rates, the elasticity of intertemporal substitution, and the elasticity of labor supply. The elasticities of substitution, in production, on the other hand, are relatively unimportant. The quantitative estimates in several recent papers are compared with each other and with some of the evidence from U.S. experience.

### Summers, Lawrence

**TI** Good Policy or Good Luck? Country Growth Performance and Temporary Shocks. **AU** Easterly, William; Pritchett, Lant; Kremer, Michael; Summers, Lawrence.

### Svensson, Lars E. O.

**TI** European Exchange Rate Credibility Before the Fall. **AU** Rose, Andrew K.; Svensson, Lars E. O.

**PD** October 1993. **TI** Fixed Exchange Rates as a Means to Price Stability: What Have We Learned? **AA** Stockholm University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4504; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** \$5.00. **JE** F31, F40, F41. **KW** Exchange Rates. Macroeconomic Stability.

**AB** The paper discusses what we have learned from last year's currency crises in ERM and the Nordic countries about fixed exchange rates as a means to achieve price stability. After discussing the explanations for the crises, the paper concludes that fixed exchange rates are not a shortcut to price stability. Monetary stability and credibility have to be built at home and cannot easily be imported from abroad. Fixed exchange rate are more fragile and difficult to maintain than previously thought. They may even be in conflict with price stability, by inducing an inflation bias. Building monetary credibility is even more

important with flexible exchange rates.

#### Swinkels, Jeroen M.

TI Is There Always a "Right" Extensive Form?  
AU Mailath, George J.; Samuelson, Larry; Swinkels, Jeroen M.

#### Syropoulos, Constantinos

TI Trading Blocs and the Sustainability of Inter-Regional Cooperation. AU Bond, Eric W.; Syropoulos, Constantinos.

TI Optimality and Stability of Regional Trading Blocs. AU Bond, Eric W.; Syropoulos, Constantinos.

#### Tadashi, Yamada

TI The Impact of Alcohol Consumption and Marijuana Use on High School Graduation. AU Yamada, Tetsuji; Kendix, Michael; Tadashi, Yamada.

#### Takahashi, Takaaki

TI Self-Defeating Regional Concentration.  
AU Matsuyama, Kiminori; Takahashi, Takaaki.

TI Self-Defeating Regional Concentration.  
AU Matsuyama, Kiminori; Takahashi, Takaaki.

#### Tang, Fang Fang

PD 1991. TI Fuzzy Preferences and Social Choice. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 91-01; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 12. PR 2 pounds. JE D11, D71, C43. KW Group Decision Schemes. Aggregation.

AB This paper generalizes: (1) the Arrow and Gibbard theorems on the concentration of power in the context of aggregation of individual preferences, and (2) the Gibbard-Satterthwaite theorem on the manipulability of group decision schemes. This is achieved by resorting to a more general framework which permits fuzziness of individual preferences. While some earlier work exists on aggregation of fuzzy preferences, there does not seem to be any discussion of the manipulability problem in a fuzzy framework. Also, the earlier writings on the aggregation of fuzzy preferences used less plausible transitivity conditions than the one used here.

#### Taylor, Susan K.

TI Firms' Use of Outside Contractors: Theory and Evidence. AU Abraham, Katherine G.; Taylor, Susan K.

#### Thomas, Stephen H.

TI An Analysis of Seasonality in the U.K. Equity Market. AU Clare, Andrew D.; Psaradakis, Zacharias; Thomas, Stephen H.

#### Topel, Robert H.

TI Favoritism in Organizations. AU Prendergast, Canice; Topel, Robert H.

#### Tracy, Joseph

TI Collateral Damage: How Refinancing Constraints Exacerbate Regional Recessions. AU Caplin, Andrew; Freeman, Charles; Tracy, Joseph.

#### Triest, Robert K.

PD November 1993. TI The Efficiency Cost of Increased Progressivity. AA University of California, Davis and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4535; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 27. PR \$5.00. JE H20, H21, H22, H23. KW Taxes. Tax Progressivity. Labor Supply. AB Increases in income tax progressivity generally entail some efficiency cost due to increased distortion of individual's labor supply decisions. This paper quantifies the magnitude of the efficiency cost of several policies which would increase the progressivity of the U.S. individual income tax. The analysis differs from previous work on this topic in allowing for complex nonlinear tax schedules similar to those which actually exist. The efficiency cost of increased progressivity is found to vary considerably with the type of tax reform considered. Expanding the earned income tax credit (EITC) is found to be a particularly efficient means of increasing progressivity. Using the labor supply parameters I consider most reasonable, I find that the efficiency cost of expanding EITC financed by increased tax rates in the intermediated brackets is less than 20 cents per dollar transferred from the upper income groups to the lower income groups.

#### Tsang, Seng-Su,

TI Environmental Costs Paid by the Polluter or the Beneficiary? The Case of CERCLA and Superfund. AU Fullerton, Don; Tsang, Seng-Su.

#### Turnovsky, Stephen J.

TI The Dependent Economy Model with Both Traded and Nontraded Capital Goods. AU Brock, Philip L.; Turnovsky, Stephen J.

#### Tversky, Amos

TI Naive Strategies in Zero-Sum Games. AU Rubinstein, Ariel; Tversky, Amos.

#### Unferth, Mark D.

TI Is There a World Real Interest Rate? AU Gagnon, Joseph E.; Unferth, Mark D.

#### Usher, Dan

PD October 1993. TI The Interests of English Canada. AA Queen's University. SR Queen's Institute for Economic Research Discussion Paper: 889; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 25. PR \$3.00 + GST Canada; \$3.50 U.S. and Foreign. JE O51, H11, D74. KW Quebec. Constitutional Reform. Canadian Government.

AB Recognition of conflicts of interest between French Canadians in Quebec and English Canadians in the rest of Canada is a necessary first step in the evaluation of proposals from Quebec for the reform of the Canadian constitution, as well as for the design of institutions for an entirely English-speaking country in the event that Quebec secedes. Interests differ about the scope of bilingualism, public recognition of cultural diversity and the division of powers between Federal and provincial governments. The probability of the separation of Quebec and the potential harm to English Canadians from the retention of the Canadian constitution as it stands would seem large enough to warrant debate now among English

Canadians about the appropriate form of government for a new English Canadian country.

#### Utter, Derek

TI Political and Economic Consequences of Alternative Privatization Strategies. AU Mann, Catherine L.; Lenway, Stefanie; Utter, Derek.

#### Van Heeckeren, Jennifer A. H.

PD September 1993. TI Raiders and Regulators: Structural Change in the Market for Corporate Control in the 1950's. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-28; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 50. PR \$5.00. JE G34, G38. KW Corporate Control. Takeovers.

AB The decade of the 1950's was a watershed period in the market for corporate control. A wave of takeover attempts was accompanied by two major structural developments: a regulatory change in 1956; and the appearance of a new takeover technique - the hostile tender offer - also in 1956. The paper is an empirical description of the takeovers in that era. It also provides evidence on a number of hypotheses regarding the effects of takeover activity on companies, and the impact of structural change. The 1956 regulations are linked to a decline in the effectiveness of the proxy contest mechanism, to the adoption of the tender offer as the dominant takeover method, and to a 30% reduction in the gains to shareholders from the contests. Takeover activity does not appear to adversely affect the long-term viability of companies, regardless of whether insurgents or management prevail in the contests.

PD September 1993. TI Proxy Contests, Bad Raiders, and Efficiency in the Market for Corporate Control. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-33; Harvard University, 79 John F. Kennedy Street, Cambridge MA 02348. PG 28. PR \$5.00. JE G30, G34. KW Shareholder. Voting. Corporate Control. Takeovers.

AB The paper presents a model of shareholder voting when there is a possibility of "bad raiders"; insurgents who would lower the value of the company if in control. Under perfect information, better managers always win. Partial information on insurgent ownership and costs is valuable, but may always follow contests. Raiders may be able to develop good reputations over time. The results suggest that proxy contests may be preferred over tender offers when incumbent management performance is below average, and when dispute issues are straightforward.

#### Waldfoegel, Joel

PD October 1993. TI The Selection Hypotheses and the Relationship Between Trial and Plaintiff Victory. AA Yale University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4508; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 30. PR \$5.00. JE K40, K41. KW Lawsuits. Trials. Case Selection.

AB The selection hypothesis of Priest and Klein explains the selection of cases for trial, from the underlying population of filed cases, based on the the position of the legal standard, the degree of stake asymmetry, and the predictability of trial outcomes. This paper develops implications of the selection

hypothesis for the relationship between trial rates and plaintiff win rates. We find strong evidence for the selection hypothesis in estimated relationships between trial rates and plaintiff win rates at trial across case types and judges. We then structurally estimate the model on judge data, yielding estimates of the model's major parameters (the decision standard, the degree of stake asymmetry, and the uncertainty parameter) for each of three major case types, contracts, property rights, and torts. We are able to infer that tried cases are unrepresentative of filed cases and that stakes are higher for plaintiffs in contract and property rights cases and higher for defendants in tort cases. Finally, we infer that the uncertainty surrounding case outcomes is higher for tort cases than for the others, supporting the view of tort system critics that legal standards in tort cases are not clearly understood.

#### Wallace, Neil

TI Interest Rates Under the U.S. National Banking System. AU Champ, Bruce A.; Wallace, Neil; Weber, Warren E.

#### Wang, Zhen Kun

PD September 1992. TI The Trading Potential of Eastern Europe. AU Wang, Zhen Kun; Winters, L. Alan. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-21; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 26. PR 2 pounds. JE F14, F13, F15. KW Trade. Gravity Model. Liberalization.

AB This paper fits a gravity model to the trade of 76 market economies. It then applies the model to data on Eastern European economies to estimate what their trading potential might have been, had they behaved like market economies in the mid-1980's. At existing levels of national income, the liberalization of Eastern Europe is unlikely to affect their mutual trade and trade with developing countries, but it will increase trade with industrial countries by factors of three to fifteen. West Germany and the USA are the principal beneficiaries of this new trade, increasing their exports and imports by over 20%. Trade must flow both ways, however: the West cannot increase its exports to the East without correspondingly increasing its imports.

PD October 1992. TI China's Potential Trade: An Analysis Based on the Gravity Model. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 92-24; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 27. PR 2 pounds. JE F14, F15, F17. KW Trade. China. Gravity Model.

AB This paper explores the markets for China's exports by using an unsophisticated but apparently robust approach - the gravity model. The paper fits the gravity model to the trade of 76 market economies, does extensive testing on the model and then applies the model to data on China to estimate what her trading potential might have been, had it behaved like market economies in the mid-1980's. The principal finding is that China currently "over-trades" with developing countries (ie trades more than would be expected on the basis of the model) but that trade with the industrial countries falls short of her potential. A growth in China's exports will have to be reflected in a growth of imports from industrial market economies. To explore industrial countries' markets, it may be necessary for



China to improve the quality of her commodities and at the same time the industrial countries need further to open their markets to China if they want to sell their goods in China.

PD May 1993. TI Liberalising EC Imports of Clothing from Eastern Europe. AU Wang, Zhen Kun; Winters, L. Alan. AA University of Birmingham. SR University of Birmingham Department of Economics Discussion Paper: 93-05; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 25. PR 2 pounds. JE F13, F14, F15. KW European Community. Trade. Clothing Trade.

AB This paper explores the impact on EC clothing trade and production of the opening of EC markets to Eastern European exports and of removal of the Multi-Fiber Arrangement (MFA). The results suggest that very substantial gains in exports are available to Eastern European producers and the EC also benefits from liberalizing Eastern Europe exports. However, abolishing the MFA for all developing countries does not seem to bring a brighter future for Eastern Europe than just liberalization. This is because other developing countries such as China and other Asian developing countries can produce and sell more cheaply in the EC markets than Eastern Europe if the MFA quotas are abolished.

#### Wascher, William

TI Minimum Wage Effects on Employment and School Enrollment: Evidence from Policy Variation in Schooling Quality and Compulsory Schooling Laws. AU Neumark, David; Wascher, William.

TI Employment Effects of Minimum and Subminimum Wages: Reply to Card, Katz, and Krueger. AU Neumark, David; Wascher, William.

#### Weber, Warren E.

TI Interest Rates Under the U.S. National Banking System. AU Champ, Bruce A.; Wallace, Neil; Weber, Warren E.

#### Wei, Shang-Jin

TI Trade Blocs and Currency Blocs. AU Frankel, Jeffrey A.; Wei, Shang-Jin.

PD March 1993. TI Gradualism Versus Big Bang: Speed and Sustainability of Reforms. AA Harvard University. SR Harvard John F. Kennedy School of Government Faculty Research Working Paper: R93-2; Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. PG 21. PR \$5.00. JE F10, O10, P41, P50. KW Reform.

AB An (optimally designed) gradualist approach to a reform can split opposition force and is more likely than a big bang to maintain a continued majority support throughout the reform. In other words, a beneficial reform may be blocked by a majority if it is implemented by a big bang, but the same reform may succeed with a gradualist approach. In this sense, a gradualist approach is politically more sustainable. On the other hand, if both approaches are politically feasible, a big bang is preferred.

TI Is There a Currency Bloc in the Pacific? AU Frankel, Jeffrey A.; Wei, Shang-Jin.

TI Emerging Currency Blocs. AU Frankel, Jeffrey A.; Wei, Shang-Jin.

#### Wei, Xiangdong

TI On Measuring the Value of Life. AU Ford, J. L.; Pattanaik, Prasanta K.; Wei, Xiangdong.

#### Weil, David N.

TI Saving and Growth: A Reinterpretation. AU Carroll, Christopher D.; Weil, David N.

TI Saving and Growth: A Reinterpretation. AU Carroll, Christopher D.; Weil, David N.

PD September 1993. TI Intergenerational Transfers, Aging, and Uncertainty. AA Brown University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4477; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 31. PR \$5.00. JE D91, D81. KW Bequests. Consumption. Saving.

AB Research on intergenerational transmission of wealth has pointed to uncertainty - about the date of one's own death, for example - as a potential source of significant bequest flows. In this paper I examine the effects of this same uncertainty on the behavior of those who expect to receive bequests. Potential heirs who are prudent will consume less than would be warranted by the size of their expected bequests, and so on average consumption will rise at the age when actual bequests are received. I examine the effect of this uncertainty on the outcome of population aging. Population aging, by changing the relative sizes of the bequeathing generation and those receiving bequests, raises the average size of bequests received and reduces the saving of the bequest-receiving generation. I show that accounting for the effects of uncertainty slows down the reduction in saving that results from population aging.

#### Weiss, Yoram

TI Social Status, Education and Growth. AU Fershtman, Chaim; Murphy, Kevin M.; Weiss, Yoram.

#### Werner, Ingrid M.

TI Round-the-Clock-Trading: Evidence from U.K. Cross-Listed Securities. AU Kleidon, Allan W.; Werner, Ingrid M.

#### West, Kenneth D.

PD August 1993. TI Some Evidence on Finite Sample Behavior of an Instrumental Variables Estimator of the Linear Quadratic Inventory Model. AU West, Kenneth D.; Wilcox, David W. AA West: University of Wisconsin. Wilcox: Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-29; C/O Simon G. Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. PG 18. PR no charge. JE C32, C12, C13, C15. KW Small Sample Properties. Method of Moments. Euler Equations. Linear Quadratic Inventory.

AB We evaluate some aspects of the finite sample distribution of an instrumental variables estimator of a first order condition of the Holt et al. (1960) linear quadratic inventory model. We find that for some but not all empirically relevant data generating processes and sample sizes, asymptotic theory predicts a wide dispersion of parameter estimates, with a substantial finite sample probability of estimates with incorrect signs. For such data generating processes, simulation evidence suggests that different choices of left hand side variables often produce parameter estimates of opposite sign. More generally,

while the asymptotic theory often provides a good approximation to the finite sample distribution, sometimes it does not.

#### Wilcox, David W.

TI Some Evidence on Finite Sample Behavior of an Instrumental Variables Estimator of the Linear Quadratic Inventory Model. AU West, Kenneth D.; Wilcox, David W.

#### Wilson, Nick

TI Failure Buy-Outs and Buy-Out Failure. AU Wright, Mike; Wilson, Nick; Robbie, Ken; Ennew, Chris.

#### Winters, L. Alan

TI Controlling Greenhouse Gases: A Survey of Global Macroeconomic Studies. AU Boero, Gianna; Clarke, Rosemary; Winters, L. Alan.

PD 1992. TI VERs and Expectations: Extensions and Evidence. AA Centre for Economic Policy Research. SR University of Birmingham Department of Economics Discussion Paper: 92-02; Department of Economics, University of Birmingham, Edgbaston, Birmingham B15 2TT, UNITED KINGDOM. PG 24. PR 2 pounds. JE F12, F13. KW Voluntary Export Restraint. Strategic Trade Policy. Import Surveillance.

AB This paper analyzes the effects of an expected future voluntary export restraint on the level of firms' current exports to a market. The traditional result that current exports increase is shown to depend on the degree of competition in the exporting industry and the anticipated restrictiveness of the VER. The former relationship is tested by reference to the effect of EC import surveillance on its imports. Surveillance is argued to indicate an increased probability of a VER future, and it is found that while competitive industries respond to it by increasing exports to the EC, less competitive ones curtail exports. It is argued that this constitutes one of the few empirical tests of the strategic part of strategic trade policy.

TI The Trading Potential of Eastern Europe. AU Wang, Zhen Kun; Winters, L. Alan.

TI Liberalising EC Imports of Clothing from Eastern Europe. AU Wang, Zhen Kun; Winters, L. Alan.

#### Wolff, Edward N.

TI Growth in a Dual Economy. AU Blomstrom, Magnus; Wolff, Edward N.

#### Wolinsky, Asher

PD August 1993. TI Regulation of Duopoly Under Asymmetric Information: Prices Vs. Quantities. AA Northwestern University. SR Northwestern University Center for Mathematical Studies in Economics and Management Science Discussion Paper: 1061; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208. PG 37. PR per copy: \$3.00 U.S. and Canada; \$5.00 via international mail. Make checks payable to Northwestern University. JE D43, D82. KW Regulation of Oligopoly. Asymmetric Information.

AB This paper discusses the regulation of oligopolistic differentiated product industries under conditions of incomplete information. The regulator can control the prices, and impose

quantity restrictions, but cannot control effectively the quality choices of the firms. We inquire about the optimal choice of instruments by the regulator--whether and under what conditions the regulation of prices or quantities achieves better results. In the spatial duopoly model analyzed here uninterrupted competition will generally results in an inefficient allocation. When the regulator knows the technologies, optimal price regulation results in distortions of the quality choice, but optimal regulation of quantities achieves the first best outcome. When the regulator is uncertain about the technologies neither of these methods will yield the first best outcome. We characterize the optimal regulation problems for these two methods, and solve explicitly two specific examples.

#### Woodford, Michael

TI Dynamic General Equilibrium Models with Imperfectly Competitive Product Markets. AU Rotemberg, Julio J.; Woodford, Michael.

#### Woodland, Stephen

TI Are Workers Paid Their Marginal Product? Evidence from a Low Wage Labour Market. AU Machin, Stephen; Manning, Alan; Woodland, Stephen.

#### Wright, Mike

PD July 1993. TI Failure Buy-Outs and Buy-Out Failure. AU Wright, Mike; Wilson, Nick; Robbie, Ken; Ennew, Chris. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 162; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 21. PR no charge. JE G34, G32, G33. KW Acquisitions. Receivership. Financing Policy.

AB Management buy-outs have become an international phenomenon, yet important differences exist between countries in the nature of buy-outs. In the early 1990's, the differential impact of recession has brought two important issues to the fore. The first involves the contribution of buy-outs to restructuring failed firms and the second relates to concerns over the viability of buy-out transactions carried out in the 1980's. This paper addresses these issues as follows. First, it reviews the criteria for the development of a buy-out market; second it examines the nature and extent of buy-outs of firms in receivership; and third it examines financial factors which influence the failure of buy-outs. The analysis of the sample of buy-outs of firms in receivership show that in the 1990's such firms are more likely to be profitable subsidiaries of failed groups, to be located in the South East of England and to be in service industries. The study found that the main reasons for failure were parent related, with unwise acquisition policies being one of the most important factors.

#### Wright, Stephen

PD October 1993. TI Measures of Real Effective Exchange Rates. AA University of Cambridge. SR University of Cambridge Department of Applied Economics Working Paper: 9316; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 32. PR \$5.00 (L2.50), checks payable to University of Cambridge. JE C43, C82, F31. KW Weighting. Data Comparability. Relative Prices.

AB There is no clear consensus on how real exchange rates

should be measured. This paper seeks to provide a framework for discriminating between the various available measures. On both theoretical and practical grounds, a strong preference is presented for measures based on relative value-added deflators. This case is greatly strengthened by more practical considerations of international data comparability. By exploiting a new approach to weighting real effective exchange rates (EER's), whereby indices can be produced using data from only a relatively small number of countries, real EER's are presented for the major 7 industrial countries, over a much longer sample than is feasible for broader-based indices. The main features of these series are discussed in the light of the arguments presented in earlier sections of the paper.

#### Yamada, Tetsuji

PD October 1993. TI The Impact of Alcohol Consumption and Marijuana Use on High School Graduation. AU Yamada, Tetsuji; Kendix, Michael; Tadashi, Yamada. AA Yamada: Rutgers University and National Bureau of Economic Research. Tadashi: University of Tsukuba and National Bureau of Economic Research. Kendix: Rutgers University. SR National Bureau of Economic Research Working Paper: 4497; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 14. PR \$5.00. JE I21, K42. KW Education. Graduation Rates. Alcohol Use. Marijuana Use.

AB In this study we use data from the National Longitudinal Survey of Youth (NLSY). We estimate the relationship between high school graduation, and alcohol and marijuana use among the sample of high school students. We also estimate these students' demand determinants for each of these substances. Our results show that there are significant adverse effects of alcohol and marijuana use on high school graduation. In addition, we find that beer taxes, minimum drinking age laws and marijuana decriminalization have a significant impact on the demand for these substances. Our findings have important policy implications. We find that a ten percent increase in beer tax, reduces alcohol consumption among high school students, which in turn raises the probability of high school graduation by 6.6 to 8.2 percent. Raising the minimum drinking age for liquor also reduces liquor and wine consumption, and consequently, improves the probability of high school graduation.

#### Yang, Tzu-Han

TI Market Structure and International Trade: Business Groups in East Asia. AU Feenstra, Robert C.; Yang, Tzu-Han; Hamilton, Gary G.

#### Yip, Chong K.

TI Open Economy Macroeconomics Under Imperfect Competition: A Two Country Model. AU Fender, John; Yip, Chong K.

#### Yndgaard, Ebbe

PD November 1993. TI Exchange Equilibrium with Interdependent Utility Functions: An Algorithm. AA University of Aarhus. SR Aarhus Institute of Economics Memo: 1993-21; Institute of Economics, University of Aarhus, Building 350, Universitetsparken, DK-8000 Aarhus C, DENMARK. PG 12. PR no charge. JE D51, C63. KW Exchange Economy. Tatonnement. AB The paper presents a numerical algorithm that in a

tatonnement-like way is able to determine the equilibrium solution of an exchange economy with interdependent individual utility functions.

#### Yoon, Youngjun

TI Geometric Indices: A Theory of Hedging and Econometric Analysis with Application to the U.K. Stock Market. AU Rogers, L. C. G.; Satchell, Stephen E.; Yoon, Youngjun.

TI Some Statistics for Testing the Influence of the Number of Transactions on the Distributions of Returns. AU Satchell, Stephen E.; Yoon, Youngjun.

#### Young, Alwyn

PD October 1993. TI Lessons from the East Asian NICs: A Contrarian View. AA Massachusetts Institute of Technology and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4482; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 15. PR \$5.00. JE O53, O11, O47. KW East Asia. Productivity Growth. Growth Rate.

AB The unusually rapid and prolonged growth of both output and exports in the Newly Industrializing Countries of East Asia has led many economists to believe that productivity growth in these economies, particularly in their manufacturing sectors, has been extraordinarily high. This view has, in turn, led to a growing belief in the "dynamic" (i.e. total factor productivity) gains from an outward orientation. This view fails to take into account the equally unusual rapid growth of both capital and labor input in these economies. Using the Summers & Heston and OECD data sets, this paper uses simple back of the envelope calculations to show that, as regards productivity growth in the aggregate economy and in manufacturing in particular, the East Asian NICs are not, in general, substantial outliers. The principal lessons to be drawn from the NICs are likely to be those concerning the potential gains from factor accumulation and the sectoral reallocation of resources, i.e. "static" neoclassical gains which have fueled the dynamic growth of these economies for more than 20 years.

#### Zeckhauser, Richard

TI Equilibrium with Agglomeration Economies. AU Lindsey, John; Zeckhauser, Richard.

TI Willingness to Pay and the Concentration of Risk. AU Pratt, John; Zeckhauser, Richard.

TI On the Degree of Confidence for Adverse Decisions. AU Schauer, Frederick; Zeckhauser, Richard.

#### Zeldes, Stephen P.

TI The Importance of Precautionary Motives in Explaining Individual and Aggregate Saving. AU Hubbard, R. Glenn; Skinner, Jonathan; Zeldes, Stephen P.

#### Zilibotti, Fabrizio

PD August 1993. TI A Rostovian Model of Endogenous Growth and Underdevelopment Traps. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 166; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 42.

PR no charge. JE O11, O16, D51. KW Development. Growth Dynamics.

AB The paper presents a model which combines self-sustained growth and "underdevelopment traps" into a common analytical framework. The objective is to give an analytical interpretation to Rostow's observation that there is "a decisive interval in the history of a society when growth becomes its normal condition" and to the empirical evidence that some countries seem not to have achieved this stage yet. The model exhibits aggregate non-convexities and thresholds which separate a region where growth is "Solow-type", with convergence to a stationary steady-state from a region where growth is "Romer-type", with endogenous self-sustained growth. In some critical stages of development multiple equilibrium trajectories may exist, consistent with alternative sets of self-fulfilling beliefs.

PD August 1993. TI Endogenous Growth and Intermediation in an "Archipelago" Economy. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 167; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 16. PR no charge. JE D51, O11, O16. KW Market Imperfections. Growth. Development.

AB A general equilibrium model based on the parable of an economy of many islands shows that market imperfections in the intermediation activity affect economic growth and possibly prevent take off into sustained growth. The inhabitants of different islands accumulate heterogeneous assets and transportation-type intermediation allows for better allocation of the productive resources. The development process is accompanied by a reduction in intermediation costs, which induces firms to adopt more efficient techniques and sustains economic growth. A laissez-faire economy suffers from two distortions: the existence of market imperfections and a "thick market" externality.

Zimmerman, David J.

TI Estimates of the Returns to Schooling from Sibling Data: Fathers, Sons, and Brothers. AU Ashenfelter, Orley; Zimmerman, David J.

TI Estimates of the Returns to Schooling from Sibling Data: Fathers, Sons, and Brothers. AU Ashenfelter, Orley; Zimmerman, David J.