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)

Abreu, Dilip

PD November 1993. **TI** The Folk Theorem for Repeated Games: A NEU Condition. **AU** Abreu, Dilip; Dutta, Prajit K.; Smith Lones. **AA** Abreu: Princeton University. Dutta: University of Wisconsin. Smith: Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-19; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 11. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** C72, C73. **KW** Repeated Games. Folk Theorem. Necessary and Sufficient Condition. Nonequivalent Condition. Non-Equivalent Utilities.

AB The Fudenberg and Maskin (1986) folk theorem for discounted repeated games assumes that the set of feasible payoffs is full dimensional. We obtain the same conclusion using a weaker condition. This condition is that no pair of players has equivalent von Neumann-Morgenstern utilities over outcomes. We term this condition NEU "non-equivalent utilities". The condition is weak, easily interpreted, and also almost necessary for the result.

Acemoglu, Daron

PD October 1993. **TI** Labor Market Imperfections & Thick Market Externalities From Innovation. **AA** Masschusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-14; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 24. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** O31, E24. **KW** Search. Innovation. Training. Thick Market Externalities.

AB When labor market imperfections are important, workers (and firms) do not receive their full marginal product. This is shown to imply that the adoption of an innovation that increases the non-firm specific marginal productivity of a worker creates a positive externality on other firms. The presence of this externality can lead to a multiplicity of equilibria whereby in the inferior equilibrium innovation is not profitable because the workforce in untrained (unskilled). This mechanism illustrates how labor market conditions influence investment and innovation activity thus offering new links between unemployment and growth. These links also imply that when the entry decisions of firms are endogenized a further thick market externality is created since entry, by reducing unemployment, makes investment and further entry more profitable. Finally when firms are allowed to choose the timing of their innovation, free-rider effects are introduced and the Pareto preferred equilibrium disappears.

PD October 1993. **TI** Credit Market Imperfections and Separation of Ownership From Control as a Strategic Decision. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-15; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 25. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** D82, G32. **KW** Separation of Ownership from Control. Credit Markets. Renegotiation. .

AB This paper considers a simple finance model with asymmetric information and moral hazard and establishes the following results: (i) in the unique equilibrium of our economy, projects are financed using debt contracts with warrants, thus there exist forces that make equilibrium contracts resemble what we observe in practice; (ii) these contracts are often inefficient and in particular the equilibrium is constrained Pareto inefficient because of the competition among financiers; (iii) the internal organization of the firm is closely linked to the credit market. If ownership can be separated from control, the inefficiencies can can be avoided; (iv) the introduction of a third-party is essential for this result; (v) even when collusion (renegotiation) between the manager and the entrepreneur at the expense of other claim-holders is possible, separation of ownership from control is beneficial. In this case debt contracts are used to minimize the gain to collusion, managers are paid an "efficiency salary" and the managerial labor market does not clear.

PD January 1994. **TI** Monitoring and Collusion: "Carrots" Versus "Sticks" in the Control of Auditors. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-9; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 26. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** D23, L22. **KW** Monitoring. Collusion. Implicit Collusion. Career Concerns. Threat of Lawsuits.

AB Monitors can be useful to the principal in controlling the agent. However, in such an hierarchical organizational, monitors will also have an incentive to collude with the agent. We consider a static model where an auditor is hired to monitor an empire building manager. We start by allowing unrestricted and enforceable side-contracting between the manager and the auditor. While this model predicts that the auditor's fees should be contingent upon her report, in practice auditors are largely controlled by the threat of lawsuits rather than direct incentives. A static model does not fit this observation nor the established view of the imperfectness of the auditors' independence. It is also unable to answer a number of interesting question about collusion. We therefore offer a theory of implicit collusion where the auditor conceals information because of her "career concerns" which arise from the expectation of future rents. This dynamic model predicts that the "stick" of the law combined with a flat fee is a more effective method of control than bonuses. We also show that market structure matters for organizational form, a large scope for monitors may facilitate implicit collusion and that an interesting multiplicity of equilibria is possible. Overall we argue that it is more realistic and informative to explicitly model the forces that may maintian collusion as an equilibrium.

Agastya, Murali

PD March 1993. **TI** Multi-Player Bargaining Situations: A Decision Theoretic Approach. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9307; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 13. **PR** Canada $7.00; Elsewhere $9.00. **JE** C78. **KW** Bargaining Theory. Side Payments.

AB Often, one has to choose between bargaining situations with a knowledge of the amount of surplus available for sharing but ignorant of the exact process by which this surplus is split. Given the extreme sensitivity of the predictions of the non-cooperative bargaining theory to the specification of the bargaining process, the question arises as to how a typical agent makes this ex-ante choice. In this paper I adopt an axiomatic approach to tackle this problem. The model also axiomatizes a bargaining solution where the physical outcome is immune to ordinal transformations of the players' preferences for the underlying set of alternatives. The main result is as follows: Assuming that the side-payments can be made in a single infinitely divisible good, the bargaining solution requires that a player be paid a weighted average of his marginal contributions to each coalition. In fact, these weights coincide with the Shapley weights.

Aghion, Philippe

PD July 1993. **TI** On the Management of Innovation. **AU** Aghion, Philippe; Tirole, Jean. **AA** Aghion: Nuffield College and European Bank for Reconstruction and Development. Tirole: IDEI and Massachusetts Institute of Technology and CERAS. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-12; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 54. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** O31, O32. **KW** R&D. Schumpeterian Hypoteses. Research Joint Ventures. Patent Ownership. Incentives.

AB Empirical and theoretical analyses of the management of innovation must carefully disentangle its several dimensions: Who finances R&D expenditures? Who has decision rights over the R&D process and property rights over the innovation? Who receives the return streams derived from the innovation? This paper is a first attempt at opening the R&D blackbox. It studies the foundations for co-financing by investors and users of the innovation and for employment features such as shop rights, trailer clauses and the hired-for doctrine. It investigates the theoretical validity of Schumpeterian hypotheses. Last it analyses the incentive costs and benefits of research joint ventures.

PD December 1993. **TI** Uncovering Some Causal Relationships Between Productivity Growth and the Structure of Economic Fluctuations: A Tentative Survey. **AU** Aghion, Philippe; Saint-Paul, Gilles. **AA** Aghion: Nuffield College. Saint-Paul: ENS. **SR** National Bureau of Economic Research Working Paper: 4603; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** O47, E32. **KW** Business Cycles. Productivity Growth.

AB This paper dicusses recent theoretical and empirical work on the interactions between growth and business cycles. One may distinguish two very different approaches to the problem of the influence of macroeconomic fluctuations on long-run growth. In the first approach, which relies on learning by doing mechanisms or aggregate demand externalities, productivity growth and direct production activities are complements. An expansion therefore has a positive long-run effect on total factor productivity. In the second approach, heareafter labeled "opportunity cost" or productivity growth and production activities are substitutes. The opportunity cost of some productivity improving activities falls in a recession, which has a long-run positive impact on output. This does not mean, however, that recessions should on average last longer or be more frequent, since the expectation of future recessions reduces today's incentives for productivity growth. We briefly discuss some empirical work which is mildly supportive of the opportunity cost approach, while showing that it can be reconciled with the observed pro-cyclical behavior of measured total factor productivity.

PD December 1993. **TI** Social Mobility and Corporate Development. **AU** Aghion, Philippe; Piketty, Thomas. **AA** Aghion: Nuffield College and EBRD. Piketty: Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-20; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 30. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** O33, O42, O32, O15. **KW** Growth Theory. Technological Change. Social Mobility.

AB Historical evidence suggests that corporations have played a major role in producing information about and in promoting individual talents. This paper analyzes the implications of the corporate promotion mechanism for technological progress and macroeconomic development. First, given that the fraction of detected talents may depend negatively upon the degree of technological sophistication and that private managers do not appropriate the full social gains of corporate promotions; too skill-intensive new technologies tend to be adopted in equilibrium, the result being a socially excessive rate of technological progress. Next, in a two-sector economy where an informal, low-productivity sector producing little or no information about talents coexists with the formal corporate sector, information accumulation may exhibit perverse dynamics: low initial information about individual talents may lead the economy to a low-output, low-mobility steady state or "trap", especially when more sophisticated technologies are made available "too soon". Wealth-redistribution policies turn out to be partly ineffective at eliminating this trap; whereas returning for some time to less sophisticated technologies and/or directly subsidizing corporate detection activities can favor the emergence of a broader managerial elite and thereby ensure the transition to the high-output, high-mobility steady state.

Aiyagari, S. Rao

PD October 1992. **TI** Inequality and Capital

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Accumulation Under Majority Voting Taxation. **AU** Aiyagari, S. Rao; Peled, Dan. **AA** Aiyagari: Federal Reserve Bank of Minneapolis. Peled: Technion-Israel Institute of Technology and University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9213; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 22. **PR** Canada $5.00; Elsewhere $7.00. **JE** D72, H31, H32, D92, D31. **KW** Taxation. Income Distribution. Capital Accumulation.

AB The conventional wisdom appears to be that positively skewed income distributions (median less than mean) imply relatively high proportional tax rates set by majority voting, and hence, decreased savings and slower growth. This paper presents a computable capital accumulation model, which casts doubts on this view. When the distribution of agents' characteristics relevant for voting over tax rates evolves endogenously, there are no significant differences between tax rates set by majority voting and utilitarian governments. Moreover, when differences do exist they can be of either sign. These conclusions remain true despite the fact that the model generates positively skewed distributions of resources for agents' characteristics relevant for voting.

Aizcorbe, Ana Maria

PD June 1994. **TI** Plant Shutdowns, Compositional Effects and Procyclical Labor Productivity: The Stylized Facts for Auto Assembly Plants. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-13; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 15. **PR** no charge. **JE** E32, O47, L62. **KW** Heterogeneity. Labor Productivity Measurement. Auto Assembly.

AB This paper analyzes the implications of plant shutdowns for the measurement of labor productivity using two sets of data on motor vehicles for 1978- 1984. In particular, we explore the role played by plant shutdowns in generating procyclicality in an aggregate labor productivity measure. We compare the cyclical movements of two aggregate series constructed from the micro data: one which mimics the typical series analyzed in empirical studies and the other which removes various measurement problems in the typical series. In a panel of 22 auto assembly plants, we find 1) the typical measure is very procyclical; 2) the pure measure is not; and 3) the most important source of procyclicality in the typical measure comes from including labor in plants that have shut down. Using BLS data for all establishments in SIC 3711, we confirm that removing labor at shutdown plants reduces the cyclicality of an aggregate labor productivity measure. Because these workers are not likely to be "hoarded" or on vacation leave, this finding lends empirical support to the overhead labor and Fay/Medoff explanations for procyclical labor productivity.

Aizenman, Joshua

PD February 1994. **TI** On the Need for Fiscal Discipline in a Union. **AA** Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4656; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** H30, H50, H62, H63, D70. **KW** Deficit Financing. Public Debt. Cooperation. Adverse Shock.

AB This paper investigates the behavior of public debt in countries forming a union (as outlined, e.g., by the Maastricht treaty). We consider a federal union of states where the center has limited control over the spending patterns of the union members, and where the union members' behavior has repercussions on the future public debt. The public has preferences against higher public debt, and will oust high-debt administrations. Adverse shocks are shown to induce a regime switch from a cooperative outcome to limited cooperation, and from limited cooperation to the noncooperative outcome. While a transitory adverse shock calls for a higher public debt in the cooperative regime, the switch towards limited cooperation entails a drop in the public debt (relative to the cooperative desirable outcome). With limited cooperation further drops in income will call for a drop in public debt. If the adverse shock is powerful enough, sustaining limited cooperation may become infeasible. A regime switch may yield nonlinearities, where the macroeconomic behavior is abruptly altered following the switch. Our model provides tentative support for limits on public debt, which is needed to free the instrument of deficit financing for use in bad recessions.

PD March 1994. **TI** Foreign Direct Investment, Employment Volatility and Cyclical Dumping. **AA** Dartmouth College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4683; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 22. **PR** $5.00. **JE** E20, F41, J63. **KW** Foreign Direct Investment. Employment. Productivity.

AB This paper analyzes the impact of foreign direct investment (FDI) on the patterns of cyclical dumping (exporting at a price below marginal cost). We consider a global economy where manufacturing is monopolistic-competitive, and productivity is subject to country-specific shocks. Labor is risk averse and immobile across countries, and entrepreneurs are risk neutral. Labor employment and income is governed by implicit contracts, which offer stable real income and volatile employment. Capacity investment is irreversible and is done prior to the resolution of uncertainty. If investment in manufacturing capacity is characterized by returns to scale, higher volatility of productivity shocks is shown to induce producers to diversify internationally by means of FDI. The resultant integrated equilibrium is characterized by great volatility of employment, as the multinational effectively reallocates employment from a low-realized-productivity to a high-realized-productivity country. We derive a simple condition characterizing cyclical dumping--it occurs when the percentage shortfall of the realized employment exceeds Lerner's ratio of market power (the inverse of the demand elasticity). Cyclical dumping is more frequent in more competitive and more labor-intensive industries. FDI is shown both to improve welfare and to increase the incidences of cyclical dumping.

Akhavein, Jalal D.

TI A General Method of Deriving the Efficiencies of Banks From a Profit Function. **AU** Swamy, P. A. V. B.; Akhavein, Jalal D.; Taubman, Stephen B.

Alesina, Alberto

PD February 1994. **TI** The Political Economy of Budget Deficits. **AU** Alesina, Alberto; Perotti, Roberto.

AA Alesina: Harvard University and Centre of Economic Program and Research and National Bureau of Economic Research. Perotti: Columbia University. **SR** National Bureau of Economic Research Working Paper: 4637; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 43. **PR** $5.00. **JE** H61, H63, P16, H62. **KW** Budget Deficits. OECD Public Debt. Political Economy Models.

AB This paper provides a critical survey of the literature on politico-institutional determinants of the government budget. We organize our discussion around two questions: Why did certain OECD countries, but not others, accumulate large public debts? Why did these fiscal imbalances appear in the last twenty years rather than before? We begin by discussing the "tax smoothing" model and conclude that this approach alone cannot provide complete answers to these questions. We will then proceed to a discussion of political economy models, which we organize in six groups: i) Models based upon opportunistic policy makers and naive voters with "fiscal illusion"; ii) Models of intergenerational redistributions; iii) Models of debt as a strategic variable, linking the current government with the next one; iv) Models of coalition governments; v) Models of geographically dispersed interests; vi) Models emphasizing the effects of budgetary institutions.

Allen, Steven G.

PD February 1994. **TI** Updated Notes on the Interindustry Wage Structure. **AA** North Carolina State University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4664; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** J31, L60. **KW** Manufacturing. Wage Dispersion. Productivity.

AB This paper documents and analyzes changes in the wage structure across manufacturing industries over the last one hundred years. Inter-industry differentials in wages are highly stable for production workers, but autocorrelation patterns for nonproduction workers are considerably weaker. Industry wage patterns are very similar for production and nonproduction workers today, but this has been true only since 1958. Dispersion of wages across industries has shown varying trends over the last one hundred years, but has never in this century been higher than it is today. The variables that are most strongly correlated with wage growth are productivity growth, rising union density, rising capital intensity, and profit growth.

PD March 1994. **TI** Developments in Collective Bargaining in Construction in the 1980's and 1990's. **AA** North Carolina State University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4674; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** $5.00. **JE** J30, J50. **KW** Wage Differentials. Union. Unemployment.

AB This paper summarizes important developments in collective bargaining in the construction industry in the 1980's and 1990's. Workers in the industry have experienced high unemployment and a 17 percent drop in real wages. Union density has declined from 33 percent in 1981 to 22 percent in 1992, despite a sizable drop in the union-nonunion differential in wages and a tremendous reduction in the number of strikes. The main reasons for the decline in union strength are the adoption of strategies by contractors and owners to control labor costs and changes in the interpretation of labor laws that have given contractors more flexibility in determining their collective bargaining status.

Altshuler, Rosanne

PD March 1994. **TI** Do Repatriation Taxes Matter? Evidence From the Tax Returns of U.S. Multinationals. **AU** Altshuler, Rosanne; Newlon, T. Scott; Randolph, William C. **AA** Altshuler: Rutgers University and National Bureau of Economic Research. Newlon and Randolph: U.S. Department of Treasury. **SR** National Bureau of Economic Research Working Paper: 4667; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** $5.00. **JE** F23, G30, H20. **KW** Foreign Subsidiaries. Dividends.

AB An open question in the literature on the taxation of multinational corporations is whether repatriation taxes influence whether the profits of foreign subsidiaries are repatriated or reinvested abroad. Theoretical models suggest that divided remittances should not be influenced by repatriation taxes. The results of recent empirical work indicate that dividend remittances are sensitive to repatriation taxes. This paper investigates whether the empirical evidence can be reconciled with the theoretical results by recognizing that repatriation taxes on dividends may vary over time and provide firms with an incentive to time repatriations so that they occur in years when repatriation tax rates are relatively low. We use information about cross-country differences in tax rates to separately estimate the influence of permanent tax changes, as would occur due to changes in statutory tax rates, and transitory tax changes on dividend repatriations. Our data contains U.S. tax return information for a large sample of U.S. corporations and their foreign subsidiaries. We find that the permanent tax price effect is significantly different from the transitory price effect and is not significantly different from zero, while the transitory tax price effect is negative and significant. This suggests that repatriation taxes do affect dividend repatriation behavior but only to the extent that they vary over time. Previous empirical work has apparently measured the effect of timing behavior.

Ammer, John

PD June 1994. **TI** Inflation Targeting in the 1990's: The Experiences of New Zealand, Canada, and the United Kingdom. **AU** Ammer, John; Freeman, Richard T. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 473; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 32. **PR** no charge. **JE** E52, E31, E58. **KW** Inflation Targets. Price Stability. Monetary Policy. Credibility.

AB We survey the recent experiences of three industrial countries--New Zealand, Canada, and the United Kingdom--that have announced specific targets for inflation. Despite success on the part of the targeting central banks in attaining their inflation goals thus far, bond yields suggest that long-term inflation expectations for these countries persistently tended to exceed long-term targets throughout the first several years of targeting. For New Zealand and Canada, survey data generally implied that inflation also was expected to exceed its targeted level in the near term.

Anderson, F. J.

PD October 1992. **TI** Does Trade Cause Firms to Specialize? **AA** University of Western Ontario and Lakehead University. **SR** University of Western Ontario Department of Economics Research Report: 9214; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 13. **PR** Canada $5.00; Elsewhere $7.00. **JE** L11, F14. **KW** Rationalization Effects. Market Size. Trade Barriers.

AB The paper models the rationalization effects of trade barriers and market size on the firm's decision to produce one or more products. Firms tend to choose multiproduct plants when market size is small in relation to plant size, when product changeover costs are low, when the demand for individual products is relatively inelastic, and when products are poor substitutes in demand. By expanding effective market size, free trade tends to produce specialized plants. The likelihood that specialized plants will emerge when markets are integrated depends on the magnitude of transport costs. Rationalization takes the form of savings on changeover costs in specialized plants.

PD March 1993. **TI** Issues in a Natural Resources Economy. **AA** Lakehead University and University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9304; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 28. **PR** Canada $7.00; Elsewhere $9.00. **JE** L70, O13. **KW** Natural Resources. Development Resources Sectors.

AB The present paper reviews the performance of Canada's non-agricultural resources sectors over the past two decades and examines the main theoretical models designed to explain the structure of a natural resources economy (NRE). From the perspective of export and employment growth, resources sectors no longer occupy the central position in Canadian development that they once did. Productivity performance in Canadian resources sectors has been mixed with some signs of strengthening in the latter part of the 1970-1987 period. Depending on the assumptions of the NRE model used to describe the Canadian economy, resource performance impinges on rents, wage rates, and employment. Resource rents (though difficult to measure) occupied center-stage in the 1970's. Falling resources prices in the 1980's combined with advances in the theory of public sector rent capture have shifted attention in the late 1980's away from rent issues to issues of competitive performance.

PD June 1993. **TI** Factor Returns, Comparative Advantage and Market Size: Some Core-Periphery Results. **AA** Lakehead University and University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9312; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 32. **PR** Canada $7.00; Elsewhere $9.00. **JE** L11, D24, R13. **KW** Increasing Returns. Internal Economies. Trading Regions.

AB An increasing returns model with economies internal to firms along the lines of Venables (1985) is used to examine returns to factors and comparative advantage between two trading regions that differ in the sizes of their internal markets. The two regions are separated by transport costs. Their relative factor returns (real wages) are endogenously determined by a trade balance requirement. Both cross-hauling and one-way flows of increasing returns (IRS) goods are examined. Real factor returns are always lower in the small-market region and the large-market region exhibits comparative advantages in the IRS goods.

Anderson, James E.

PD October 1993. **TI** A New Approach to Evaluating Trade Policy. **AU** Anderson, James E.; Neary, J. Peter. **AA** Anderson: Boston College. Neary: University College Dublin, University of Ulster and Center of Economic Policy Research. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 173; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 30. **PR** no charge. **JE** F13, F10. **KW** Trade Policy. Tariffs. Protection. Export Restraints.

AB This paper introduces a new measure, the Trade Restrictiveness Index, which measures the restrictiveness of a system of trade protection. The index is a general equilibrium application of the distance function and answers the question: "What uniform set of trade restrictions is equivalent (in welfare terms) to the initial protective structure?" The index is applicable to both tariffs and quotas and allows international and intertemporal comparisons. The index is operational and we provide an empirical example to illustrate its applicability and to show its superiority to commonly used measures.

PD November 1993. **TI** Domestic Distortions and International Trade. **AU** Anderson, James E.; Neary, J. Peter. **AA** Anderson: Boston College. Neary: University College Dublin, University of Ulster, and Centre for Economic Policy Research. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 179; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 26. **PR** no charge. **JE** F13, F10. **KW** Trade Policy. Domestic Distortions. Subsidy Equivalents.

AB In this paper we develop techniques for measuring the trade policy equivalent of domestic distortions, using a distance function approach. Our measure, the Trade Restrictiveness Index, is shown to equal the uniform tariff which is welfare-equivalent to a given pattern of domestic taxes and subsidies. We extend the Index to incorporate taxes in markets for non-traded goods and factors of production and illustrate its operationality with an application to liberalization in Mexican agriculture. We conclude that our Index has considerable potential in empirical work and as an aid to trade negotiators.

PD January 1994. **TI** Measuring the Restrictiveness of Trade Policy. **AU** Anderson, James E.; Neary, J. Peter. **AA** Anderson: Boston College. Neary: University College Dublin, London School of Economics and Center of Economic Policy Research. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 186; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 30. **PR** no charge. **JE** F13, F10. **KW** Trade Policy. Tariffs. Quotas. General Equilibrium.

AB This paper provides an introduction to the Trade Restrictiveness Index, which equals the uniform tariff that is welfare-equivalent to a given pattern of trade protection. Unlike standard measures of trade restrictiveness, our proposed alternative has a solid theoretical basis, can deal with both tariffs and quantitative restrictions, and can be adapted to construct the trade policy equivalent of domestic distortions. The results of a number of applications are compared and procedures for operationalizing the Index on a personal computer are described. We conclude that our Index has considerable potential in empirical work and as an aid to trade negotiators.

Anderson, Richard G.

PD June 1994. **TI** Replication and Scientific Standards in Economics a Decade Later: The Impact of the JMCB Project. **AU** Anderson, Richard G.; Dewald, William G. **AA** Federal Reserve of Bank of St. Louis. **SR** Federal Reserve Bank of St. Louis Working Paper: 94-007C; Research and Public Information Division, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. **PG** 23. **PR** no charge. **JE** A20, B40, C10, E80. **KW** Monetary Economics. JMCB Project. Replication. Data Archiving.

AB Scientific inquiry embodies skepticism. Researchers are trained to scrutinize every result, doubting not only the truth but also the tests of every hypothesis. Research papers in professional journals typically present only summaries of results, however, providing neither the programs nor data that a reader requires to fully understand - and question - the authors' tests. The Journal of Money, Credit, and Banking project a decade ago was the first attempt by the editor of a major journal to furnish readers with the data and programs used by the journal's authors. The project revealed the futility of proposing that readers obtain data and programs directly from authors, since data often were lost during the long interval between completion of the research and appearance of the published article. The project also established that professional journals were a low cost mechanism for collecting data from authors and distributing it to readers. A decade later, although the JMCB no longer requests data from authors, 2 journals have recently begun collecting such data and distributing it via the Internet.

Andrade, Isabel C.

PD May 1994. **TI** Cointegration Tests and Mean Shifts. **AU** Andrade, Isabel C.; O'Brien, Raymond; Podivinsky, Jan M. **AA** Andrade: University of Southampton and University of Wales. O'Brien and Podivinsky: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9405; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 64. **PR** no charge. **JE** C32, C15. **KW** Cointegration. Mean Shifts. Dummy Variables. Simulation.

AB We study the impact of impulse or step dummy variables when testing for cointegration using the Engle and Granger (1987) and Johansen (1988) procedures. A simulation comparison indicates that the Johansen procedure is more powerful and has an empirical size closer to the nominal size than the Engle and Granger procedure. Wrongly including a dummy variable in estimation leads to over rejecting cointegration. When an innovation outlier dummy in the DGP is not allowed for in testing, Engle and Granger's procedure is not robust with small samples.

Asilis, Carlos M.

PD January 1994. **TI** On the Political Sustainability of Economic Reform. **AU** Asilis, Carlos M.; Milesi-Ferretti, Gian Maria. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/3; International Monetary Fund, Washington, DC 20431. **PG** 22. **PR** not available. **JE** P16, D72. **KW** Economic Reform. Political Sustainability.

AB This paper provides a selective survey of the new literature on the political sustainability of economic reform. This literature provides useful insights into the interactions between a country's initial economic conditions, institutional structure and nature of the political system, and the political sustainability of alternative policy choices. These policy choices involve the speed, depth and sequencing of reforms, their distributional aspects, and the availability of foreign assistance.

PD January 1994. **TI** The U.S. Public Debt: Implications for Growth. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/4; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 17. **PR** not available. **JE** D58, E13, H20. **KW** Public Debt. Debt-to-GDP Ratio.

AB The increase in the U.S. public debt over the past twelve years raises questions about its implications for investment and economic growth. This paper places these developments within an international and historical context and quantitatively examines the implications of various measures of the current U.S. public debt-to-GDP ratio on economic growth. The analysis is undertaken through extensions of recently developed endogenous growth models. The results suggest that while higher levels of the public debt may affect long-run economic growth negatively, the order of magnitude is not large enough to be a cause for serious concern.

Autio, Erkko

TI New, Technology-Based Companies in Cambridge in an International Perspective. **AU** Lumme, A.; Kauranen, Ilkka; Autio, Erkko; Kaila, Martti M.

Backus, David K.

PD November 1993. **TI** The Japanese Trade Balance: Recent History and Future Prospects. **AA** New York University and National Bureau of Economic Research. **SR** New York University Salomon Brothers Working Paper: S-94-4; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 16. **PR** not available. **JE** F31, F32. **KW** J curve. Terms of Trade. Real Exchange Rate.

AB The recent rise in the yen has been held out as a "solution" to the persistent Japanese trade surplus. I estimate, instead, that the sharp rise in in the yen through mid-1993 will lead the trade surplus to fall from a high 3.7 percent of GNP in late 1992 to about 2.6 percent in 1995. This relatively modest decline reflects the weak correlation between relative prices and the trade balance in the data.

PD March 1994. **TI** Reverse Engineering the Yield Curve. **AU** Backus, David K.; Zin, Stanley E. **AA** Backus: New York University and National Bureau of Economic Research. Zin: Carnegie Mellon University and National Bureau of Economic Research. **SR** New York University Salomon Brothers Working Paper: S-94-5; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity

Place, New York, NY 10006. **PG** 21. **PR** not available. **JE** E43, G12, G13. **KW** Pricing Kernel. Price of Risk. Options. Futures.
AB Prices of riskfree bonds in any arbitrage-free environment are governed by a pricing kernel: given a kernel, we can compute prices of bonds of any maturity we like. We use observed prices of multi-period bonds to estimate, in a log-linear theoretical setting, the pricing kernel that gave rise to them. The high-order dynamics of our estimated kernel help to explain why first-order, one-factor models of the term structure have had difficulty reconciling the shape of the yiel curve with the persistence of the short rate. We use the estimate kernel to provide a new perspective on Hansen-Jagannathan bounds, the price of risk, and the pricing of bond options and futures.

PD March 1994. **TI** Reverse Engineering the Yield Curve. **AU** Backus, David K.; Zin, Stanley E. **AA** Backus: New York University and National Bureau of Economic Research. Zin: Carnegie-Mellon University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4676; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** E43, G12. **KW** Pricing Kernel. Term Structure.
AB See other entry.

Bai, Jushan

PD December 1993. **TI** Estimation of Structural Change Based on Wald-Type Statistics. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-6; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 22. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** C13, C20. **KW** Structural Change. Wald Statistics. Weak Convergence. Change Point. T-Consistency.
AB This paper addresses structural change in a linear regression model with an unknown change point. The change point is estimated by maximizing a sequence of Wald-type statistics. This paper focuses on the convergence rate of the estimator. T-consistency is obtained. Asymptotic distributions for the estimated change point and the estimated regression parameters are also considered. The analysis applies to both pure and partial structural changes.

PD January 1994. **TI** Stochastic Equicontinuity and Weak Convergence of Unbounded Sequential Empirical Processes. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-7; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 11. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** C13, C20, C30. **KW** Stochastic Equicontinuity. Weak Convergence. Sequential Empirical Process. Two-Parameter Brownian Bridge. Structured Change.
AB This note explains why sequential empirical processes arise naturally in the context of structural change and then provides an elementary proof for their stochastic equicontinuity. An application is considered for testing structural change in a linear regression and in a single equation of a simultaneous equations system.

Baily, Martin Neil

PD April 1994. **TI** Downsizing and Productivity Growth: Myth or Reality. **AU** Baily, Martin Neil; Bartelsman, Eric J.; Haltiwanger, John. **AA** Baily and Haltiwanger: University of Maryland and National Bureau of Economic Research. Bartelsman: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-7; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 25. **PR** no charge. **JE** O40, J20. **KW** Labor Productivity. Downsizing. Manufacturing Establishments.
AB The conventional wisdom is that the rising productivity in the U.S. manufacturing sector in the 1980's has been driven by the apparently pervasive downsizing over this period. Aggregate evidence shows falling employment accompanying the rise in productivity. In this paper, we examine the microeconomic evidence using the plant level data from the Longitudinal Research Database (LRD). In contrast to the conventional wisdom, we find that plants that increased employment as well as productivity contribute almost as much to overall productivity growth in the 1980's as the plants that increased productivity at the expense of employment. Further, there are striking differences by sector (defined by industry, size, region, wages, and ownership type) in the allocation of plants in terms of whether they upsize or downsize and whether they increase or decrease productivity. Nevertheless, in spite of the striking differences across sectors defined in a variety of ways, most of the variance of productivity and employment growth is accounted for by idiosyncratic factors.

PD May 1994. **TI** Downsizing and Productivity Growth: Myth or Reality? **AU** Baily, Martin Neil; Bartelsman, Eric J.; Haltiwanger, John. **AA** Baily : University of Maryland, National Bureau of Economic Research and McKinsey Global Institute. Bartelsman: Board of Governors of the Federal Reserve System. Haltiwanger: University of Maryland, National Bureau of Economic Research and Census Bureau. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: 94-4; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 34. **PR** no charge. **JE** O40, J30, J23. **KW** Productivity Growth. Employment Growth.
AB See other entry.

Baldwin, John

PD May 1994. **TI** A Comparison of Job Creation and Job Destruction in Canada and the United States. **AU** Baldwin, John; Dunne, Timothy; Haltiwanger, John. **AA** Baldwin: Statistics Canada and Canadian Institute for Advanced Research. Dunne: University of Oklahoma and U.S. Bureau of the Census. Haltiwanger: University of Maryland and U.S. Bureau of the Census. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: 94-2; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 32. **PR** no charge. **JE** J20, J23, L60, C81. **KW** Job Creation. Job Destruction. International Comparison.
AB In recent years a growing number of countries have constructed data series on job creation and job destruction using establishment-level data sets. This paper provides a description and detailed comparison of these new data series for the United States and Canada. First, the Canadian and United States industry-level job creation and destruction data are remarkably similar. Industries with high (low) job creation in the U.S. are evidenced by high (low) job creation in Canada. The same is true for job destruction. In addition, the overall

magnitude of gross job blows in the two countries is comparable. Second, the time-series patterns of creation and destruction are qualitatively similar but do differ in a number of important respects. In both countries, job destruction is much more cyclically volatile than job creation. This cyclical asymmetry is, however, more pronounced in the United States. The paper finishes with a characterization of the job flow patterns using a modified Blanchard and Diamond (1992) model.

Balino, Tomas J. T.

PD January 1994. **TI** The Payments Systems Reforms and Monetary Policy in Emerging Market Economies in Central and Eastern Europe. **AU** Balino, Tomas J. T.; Dhawan, Juhi; Sundararajan, V. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/13; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 22. **PR** not available. **JE** E58, G21, P34. **KW** Monetary Policy. Europe. Payments System Reform. Transition to Market Economy.

AB The paper discusses the interrelationships between payments system reform and monetary policy implementation in selected countries in Central and Eastern Europe. The reforms in the payments system are viewed as closely interrelated with the development of money and foreign exchange markets and the instruments of monetary policy used by the central banks. Large and variable float balances created special challenges. The paper shows that while departing from very similar origins, there were significant variations in experiences of the countries studied in transforming their payments systems after the start of the reforms towards a market economy, from which certain lessons can be drawn.

Ball, Laurence

PD March 1994. **TI** A Sticky-Price Manifesto. **AU** Ball, Laurence; Mankiw, N. Gregory. **AA** Ball: Johns Hopkins University and National Bureau of Economic Research. Mankiw: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4677; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** $5.00. **JE** E31, E32. **KW** Economic Fluctuations. Price Stickiness.

AB Macroeconomists are divided on the best way to explain short-run economic fluctuations. This paper presents the case for traditional theories based on short-run price stickiness. It discusses the fundamental basis for believing in this class of macroeconomic models. It also discusses recent research on the microeconomic foundations of sticky prices.

Ball, Richard

PD December 1993. **TI** Governance Structures and the Durability of Economic Reforms: Evidence from Inflation Stabilizations. **AU** Ball, Richard; Rausser, Gordon C. **AA** Ball: University of Haverford. Rausser: University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 648; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 27. **PR** $11.00. **JE** E63, H11. **KW** Political Stability. Policy Reform. Stabilization Policy.

AB This paper investigates the relationship between a country's political-economic and institutional environment, and its ability to implement sustainable economic reform programs. The policy issue on which the study focuses is inflation stabilization. The hypotheses tested are drawn both from the recent macroeconomic literature on policy credibility and from political science. The major findings include the following: (1) Despite the "conventional wisdom" to the contrary, political repression does not appear to be an effective means for implementing sustainable stabilization policies. (2) As has been previously argued theoretically and demonstrated empirically, political instability is detrimental to policy reform. (3) The political will and popular consensus for stabilization policies are enhanced during a severe economic crisis. (4) There is weak evidence that intervention by the IMF, rather than supporting reform programs, can undermine their credibility.

Bamezai, Anil

TI Revenue Instability Induced by Conservation Rate Structures: An Empirical Investigation of Coping Strategies. **AU** Chesnutt, Thomas W.; Bamezai, Anil; Hanemann, W. Michael.

Barro, Robert J.

PD January 1994. **TI** Quality Improvements in Models of Growth. **AU** Barro, Robert J.; Sala-i-Martin, Xavier. **AA** Barro: Harvard University and National Bureau of Economic Research. Sala-i-Martin: Yale University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4610; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** $5.00. **JE** O31, O32. **KW** Technological Growth. R&D Incentives.

AB Technological progress takes the form of improvements in quality of an array of intermediate inputs to production. In an equlibrium that is standard in the literature, all research is carried by outsiders, and success means that the outsider replaces the incumbent as the industry leader. The equilibrium research intensity involves three considerations: leading-edge goods are priced above the competitive level, innovators value the extraction of monopoly rents from predecessors, and innovators regard their successses as temporary. We show that if industry leaders have lower costs of research, then the leaders will do all the research in equilibrium. However, if the cost advantage is not too large, then the equilibrium research intensity and growth rate depend on the existence of the competitive fringe and take on the same values as in the standard solution. We discuss the departures from Pareto optimality and analyze the determination of the economy's rate of return and growth rate.

Bartelsman, Eric J.

PD January 1994. **TI** Productivity Dynamics: U.S. Manufacturing Plants, 1972-1986. **AU** Bartelsman, Eric J.; Dhrymes, Phoebus J. **AA** Bartelsman: Board of Governors of the Federal Reserve System. Dhrymes: Columbia University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-43; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 39. **PR** no charge. **JE** D24. **KW** Total Factor Productivity. Aggregate Productivity. Transitional Dynamics.

AB This paper presents an analysis of the dynamics of total factor productivity measures for large plants in SIC's 35,36, and 38. Several TFP measures, derived from production functions and Solow type residuals, are computed and their behavior over time is compared, using non-parametric tools. Aggregate TFP, which has grown substantially over the time period, is compared with average plant level TFP, which has declined or remained flat. Using transition matrices, the persistence of plant productivity is examined, and it is shown how the transition probabilities vary by industry, plant age, and other characteristics.

TI Downsizing and Productivity Growth: Myth or Reality. **AU** Baily, Martin Neil; Bartelsman, Eric J.; Haltiwanger, John.

TI Downsizing and Productivity Growth: Myth or Reality? **AU** Baily, Martin Neil; Bartelsman, Eric J.; Haltiwanger, John.

Bates, Timothy

PD August 1993. **TI** Determinants of Survival and Profitability Among Asian Immigrant-Owned Small Businesses. **AA** New School for Social Research. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: CES93-11; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 47. **PR** no charge. **JE** M10, J24, J15, J70. **KW** Entrepreneur. Social Capital. Asian Immigrant. Class Resources.

AB The immigrant entrepreneur is often seen as a member of supportive peer and community subgroups. These networks assist in the creation and successful operation of firms by providing social resources in the form of customers, loyal employees and financing. This study provides evidence that the success and survival patterns of Asian immigrant firms derive from their large investments of financial capital and the impressive educational credentials of the business owners. Heavy utilization of social support networks typifies the less profitable, more failure-prone small businesses owned by Asian immigrants.

PD May 1994. **TI** Firms Started as Franchises Have Lower Survival Rates Than Independent Small Business Startups. **AA** Woodrow Wilson International Center for Scholars. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: 94-3; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 27. **PR** no charge. **JE** G30. **KW** Franchise Small Business Startup. Survival. Profitability.

AB Aspiring entrepreneurs choosing to become franchisees certainly expect to improve their chances of survival during the turbulent early years of business startup and operation. Alignment with a franchisor parent company offers the franchisee managerial assistance, access to financial capital, and access to markets via the right to utilize the parent company trademark. This studies examines survival patterns among franchise and nonfranchise small firms started between 1984 and 1987: survival through late 1991 is tracked for all firms. Although the franchise operations are larger scale, better capitalized young firms, the independent business startups are found to be more profitable and their survival prospects are better than those of franchises.

Baumol, William

PD April 1994. **TI** On Efficiency and Comparative Advantage in Trade Equilibria Under Scale Economies. **AU** *Baumol, William; Gomory, Ralph E.* **AA** *Baumol:* New York University. Gomory: Alfred P. Sloan Foundation. **SR** New York University Economic Research Report: 94-13; New York University, Faculty of Arts and Science, Department of Economics, 269 Mercer Street New York, N.Y. 10003. **PG** 22. **PR** no charge. **JE** F12. **KW** Trade Equilibria. Scale Economies.

AB This paper studies the efficiency properties of the many international trade equilibria that exist in a world of scale economies. We show that such equilibria can be efficient even if they violate comparative advantage. The paper derives sufficient conditions for efficiency and provides two new efficiency concepts that may be more illuminating than the classical measure in the scale economies case. One is a measure called "local efficiency" that applies to an equilibrium that is more efficient than any solution attainable by small changes in any of the variables. The other measure is a metric that quantifies the degree to which an equilibrium falls short of classic efficiency. The paper also shows how the efficient frontier can be constructed in the scale economies case and describes some of its properties.

PD April 1994. **TI** Predation and the Logic of the Average Variable Cost Test. **AA** New York University. **SR** New York University Economic Research Report: 94-14; New York University, Faculty of Arts and Science, Department of Economics, 269 Mercer Street New York, N.Y. 10003. **PG** 32. **PR** no charge. **JE** L41. **KW** Average Variable Cost Test. Predation.

AB This paper seeks to sharpen the formulation of the average variable cost form of the widely-accepted test for predatory pricing proposed by Areeda and Turner. It is shown that average variable cost, the criterion usually used by the courts in carrying out the Areeda-Turner test, is actually more pertinent than the authors' preferred marginal-cost criterion, if the object is to prevent elimination of more efficient rivals. The paper also examines such issues as the pertinent time period for the cost calculation, the relevance of the test to combinations of outputs, and a number of issues that must be settled in carrying the test out in practice. On several of these matters it is concluded that current practice in use of the test requires sharpening or modification, and the nature of the appropriate modifications is described.

Beaulieu, J. Joseph

PD April 1994. **TI** The Effects of General Inflation and Idiosyncratic Cost Shocks on Within-Commodity Price Dispersion: Evidence From Microdata. **AU** Beaulieu, J. Joseph; Mattey, Joe. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-12; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 26. **PR** no charge. **JE** E31. **KW** Inflation. Price Dispersion.

AB This study investigates the dispersion of price levels within highly disaggregated markets by examining plant-level product records from the U.S. Census of Manufactures. The paper estimates the effects of inflation on price dispersion through cross-sectional variation in the drift rate of average target prices within a market. In a menu cost model, where sellers try to keep posted prices close to desired prices, an increase in the price of an important input raises the desired output price in much the same way that an increase in general inflation raises target prices. We measure the drift rate of the desired price from the average growth rates of composite input price indices. We then compare the drift rates of the desired prices with the dispersions of prices within markets. With microdata, we also disentangle the effects of aggregate and idiosyncratic shocks to target prices. In menu cost models, a higher variance of total shocks leads to a widening of adjustment bands, and consequently an increase in dispersion. Higher aggregate variation, however, may also lead to clumping as in Caplin-Leaky (1991), leading to lower dispersion. Higher variation also reduces the signal-to-noise ratio in imperfect information models, and it reduces the information content in a single observation in search models, and it reduces the information content in a single observation in search models such as Tommasi (1992). Lower information content also may increase price dispersion in these models. Overall, our results are significant; we explain about one-fifth of the variation in the amount of price dispersion across different commodities. In general, we find that the higher the drift rate of the desired price of a given commodity, the larger the amount of price dispersion, while the standard deviation of aggregate shocks is negatively correlated with price dispersion.

Becketti, Sean

PD December 1993. **TI** Reduced Form Evidence on the Substitutability Between Bank and Nonbank Loans. **AU** Becketti, Sean; Morris, Charles. **AA** Federal Reserve Bank of Kansas City. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-18; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 47. **PR** no charge. **JE** G21. **KW** Bank Loans.

AB Recent research has revived interest in the credit view, the theory that shifts in the availability of bank loans play an important part in generating macroeconomic fluctuations. The coincidence of an apparent bank credit crunch with the recent recession has been cited by some as new evidence for the credit view. At the same time, though, the share of bank loans in the short-term business credit market has fallen sharply, raising the possibility that the link between bank loans and economic activity may be weaker than before. The important question, for both adherents to and critics of the credit view, is not whether banks have lost market share, but whether bank loans have become a less important source of business finance on the margin. In other words, do cyclical reductions in bank loans still constrain business activity despite the availability of nonbank sources of finance such as commercial paper and finance company loans? This questions can be answered by searching for increases in the elasticity of demand for bank loans. Such increases can be detected as shifts in the reduced form equation for bank loans. This paper finds some evidence that the reduced form equation has shifted in recent years. However, the evidence does not support the view that the elasticity of demand for bank loans has increased.

Beichman, Arnold

PD January 1994. **TI** Some Notes Towards a Theory of Anti-Leadership: Ambassador Adlai Stevenson, 1961-65, Senator Joseph McCarthy, 1950-54. **AA** Stanford University. **SR** Stanford Hoover Institution International Studies Working Paper: I-94-2; The Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 16. **PR** no charge. **JE** D73, B31. **KW** Leadership. Self Destruction.

AB If there is a typology for leaders, can there be a typology for anti-leaders? Can a definable leader become an anti-leader? History is full of leaders--Danton, Trotsky, Nkrumah--who seemed to arrange their own destruction as Raskolnikov arranged his own exposure in Crime and Punishment. The line between success and failure in leadership is narrow. I deal with two leaders (or anti-leaders) in an attempt to see if there is any way to explain the drive to self-destruct among the golden lads and girls.

Bekaert, Geert

PD January 1994. **TI** The Implications of First-Order Risk Aversion For Asset Market Risk Premiums. **AU** Bekaert, Geert; Hodrick, Robert J.; Marshall, David A. **AA** Bekaert: Stanford University. Hodrick: Northwestern University and National Bureau of Economic Research. Marshall: Northwestern University. **SR** National Bureau of Economic Research Working Paper: 4624; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** C51, F30, G12. **KW** Risk Aversion. Excess Return Predictability.

AB Existing general equilibrium models based on traditional expected utility preferences have been unable to explain the excess return predictability observed in equity markets, bond markets, and foreign exchange markets. In this paper, we abandon the expected-utility hypothesis in favor of preferences that exhibit first-order risk aversion. We incorporate these preferences into a general equilibrium two-country monetary model, solve the model numerically, and compare the quantitative implications of the model to estimates obtained from U.S. and Japanese data for equity, bond and foreign exchange markets. Although increasing the degree of first-order risk aversion substantially increases excess return predictability, the model remains incapable of generating excess return predictability sufficiently large to match the data. We conclude that the observed patterns of excess return predictability are unlikely to be explained purely by time-varying risk premiums generated by highly risk averse agents in a complete markets economy.

Berck, Peter

PD February 1994. **TI** Real and Ideal Water Rights. **AU** Berck, Peter; Lipow, Jonathan. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 698; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 19. **PR** $5.75. **JE** Q25, L14, D61, Q28, O53. **KW** Water Contracts. Tradable Contracts. Water Policy.

AB The ideal water contract for a heterogeneous population of users is a prioritized right that is fully vested and fully tradable. A set of tradable prioritized rights contracts will span the same space as the Debreu contingent commodities. Therefore, they lead to a competitive equilibrium that is Pareto optimal. Equal sharing of water shortfalls does not have this property. Existing water policies in Israel and the Disputed Territories are not characterized by an efficient set of water contracts. The system misallocates water over both time and space. Current policies are driven by strategic and ideological objectives. With peace, reform of water policies will become politically feasible. The paper concludes with a proposal for a new water-allocation system.

PD February 1994. **TI** Estimation in a Long-Run Short-

Run Model. **AU** Berck, Peter; Lipow, Jonathan. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 700; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 11. **PR** $5.00. **JE** D81, D21, D91, L73. **KW** Decisions Under Uncertainty. Lumber. Production.

AB Often, production decisions must be made under conditions of uncertainty regarding key variables influencing supply and demand conditions. In this paper, it is demonstrated that long-run and short-run profit-maximizing decisions under uncertainty may result in the familiar econometric result (usually ascribed to multicollinearity): the estimated betas of current and lagged variables tend to have opposite signs.

PD March 1994. **TI** Real and Ideal Water Rights: The Prospects for Water-Rights Reform in Israel, Gaza, and the West Bank. **AU** Berck, Peter; Lipow, Jonathan. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 698R; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 18. **PR** $6.00. **JE** Q25, Q28, D61, L14, O53. **KW** Tradable Contracts. Water Contracts. Water Policy.

AB The ideal water contract for a heterogeneous population of users is a prioritized right that is fully vested and fully tradable. A set of tradable prioritized rights contracts will span the same space as the Debreu contingent commodities. Therefore, they lead to a competitive equilibrium that is Pareto optimal. Equal sharing of water shortfalls does not have this property. Existing water policies in Israel and the Disputed Territories are not characterized by an efficient set of water contracts. The system misallocates water over both time and space. Current policies are driven by strategic and ideological objectives. With peace, reform of water policies will become politically feasible. The paper concludes with a proposal for a new water-allocation system.

PD May 1994. **TI** Natural Resource Prices: Will They Ever Turn Up? **AU** Berck, Peter; Roberts, Mike. **AA** Berck: University of California, Berkeley. Roberts: Montana State University. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 699; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 21. **PR** $12.50. **JE** C22, Q21. **KW** Unit Roots. Trend Stationary. Difference Stationary.

AB Hotelling's theory predicts that natural resource rents should increase over time. However, technical progress in resource extraction, environmental constraints, or great natural abundance could result in stagnant or declining product prices. Thus, there is no theoretical reason to believe that product prices will rise in the near future. The prediction of product prices by time-series methods is shown to depend critically upon whether the series are modeled as differenced or trend stationary. Dickey-Fuller and Lagrange Multiplier tests are used to show that the series are differenced stationary. Long and short sample series are tested. Trend stationary modeling strongly predicts rising resource prices. The result from differenced stationary modeling is that there is only a weak supposition that natural resource prices will rise.

Berger, Allen N.

PD December 1993. **TI** Did Risk-Based Capital Allocate Bank Credit and Cause a "Credit Crunch" in the U.S.? **AU** Berger, Allen N.; Udell, Gregory F. **AA** Berger: Board of Governors of the Federal Reserve System and University of Pennsylvania. Udell: New York University. **SR** New York University Salomon Brothers Working Paper: S-93-60; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 44. **PR** not available. **JE** C12, G11, G21. **KW** Bank Credit Allocation. Credit Crunch.

AB This paper examines the reallocation of bank credit from loans to securities in the early 1990's using data on virtually all U.S. banks from 1979 to 1992. We investigate implementation of risk-based capital and other regulatory and nonregulatory changes as posssible causes of a supply-driven "credit crunch." The main empirical implication of these credit crunch hypotheses--that the reallocation of credit would be most associated with low-capital, high-risk banks--gererally is not consistent with the data. Much of the reallocation is associated with demand-side factors, but it is difficult to differentiate cleanly among these factors.

PD December 1993. **TI** Did Risk-Based Capital Allocate Bank Credit and Cause a Credit Crunch in the U.S.? **AU** Berger, Allen N.; Udell, Gregory F. **AA** Berger: Board of Governors of the Federal Reserve System and Wharton Financial Institutions Center. Udell: New York University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-41; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 72. **PR** no charge. **JE** G21, G28, E58, E44. **KW** Bank. Credit Crunch. Capital Regulation.

AB See other entry.

PD February 1994. **TI** The Relationship Between Capital and Earnings in Banking. **AA** Board of Governors of the Federal Reserve System and Wharton Financial Institutions Center. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-2; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 36. **PR** no charge. **JE** G21, G28, G32. **KW** Bank. Capital. Regulation. Earnings.

AB Contrary to conventional wisdom, bank capital-asset ratios are positively related to returns on equity in the 1980's. We find that higher capital Granger-causes higher earnings and vice versa using data on U.S. banks, 1983-1989. The Granger-causation from earnings to capital suggests that banks often retain marginal increases in earnings, which is not surprising. The positive Granger-causation from capital to earnings, which is surprising, occurs primarily through lower interest rates paid on uninsured purchased funds. This is consistent with the hypothesis that expected bankruptcy costs for banks increased substantially in the 1980's, raising optimal capital ratios.

Berkovece, James A.

PD December 1993. **TI** Selection in Failed Bank Auction Prices: An Econometric Model of FDIC Resolutions. **AU** Berkovece, James A.; Liang, J. Nellie. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-40; C/O Simon Gilchrist,

Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 51. **PR** no charge. **JE** C34, G21, G28, D44. **KW** Failed Banks. Selection Bias. Deposit Premiums.
AB The FDIC uses a sequential auction procedure to sell failed banks, resulting in one of four alternative transaction methods that vary by the amount and quality of the assets and deposits sold. The sequential auctions induce selection bias into prices paid for failed banks. This paper estimates an econometric model of the FDIC auction process and failed bank prices that corrects for selection bias and yields estimated values for the different types of assets and deposits of failed banks. Estimated selection effects indicate that the majority of the FDIC's cost differences across transaction types can be attributed to the selection of banks into resolution methods based on observed and unobserved quality differences, leaving little to be explained by relative efficiency.

Bernard, Andrew B.

PD October 1993. **TI** Productivity Across Industries and Countries: Time Series Theory & Evidence. **AU** Bernard, Andrew B.; Jones, Charles I. **AA** Bernard: Massachusetts Institute of Technology. Jones: Stanford University. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-17; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 25. **PR** $6.00 Domestic; $8.00 Overseas; $2.00 Student. **JE** O23, C32. **KW** Panel Unit Roots. Economic Growth. Total Factor Productivity. Convergence.
AB In this paper, we test whether aggregate productivity movements, especially convergence, are also reflected at the industry level. Using a new result on the asymptotic normality of panel unit root estimators, we find evidence for convergence in total factor productivity for sectors such as services and construction in 14 OECD countries from 1970-1987. However, surprisingly, we find that convergence does not hold for the manufacturing sector. Convergence in total industry occurs as a result of the declining share of manufacturing and the growing share of services in these countries.

Bernhardt, Dan

PD December 1993. **TI** Enterprise, Inequality and Economic Development. **AU** Bernhardt, Dan; Lloyd-Ellis, Huw. **AA** Bernhardt: Queen's University. Lloyd-Ellis: University of Toronto. **SR** Queen's Institute for Economic Research Discussion Paper: 893; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 64. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** E00, O10, O40. **KW** Size Distribution. Heterogeneity. Altruism. Wealth Constraints.
AB We develop a dynamic general equilibrium model of economic development with altruism in which the evolution of the extent of entrepreneurship, the rate of rural-urban migration, the scale and structure of production, and the degree of income and wealth inequality are endogenously determined. The paper details the dynamic equilibrium evolution of an economy from a rural-subsistence economy to an advanced industrial society. The model generates a development process that has distributional characteristics consistent with those of the Kuznets hypothesis. We derive the optimal redistribution policy for the economy at each stage of development and determine the consequences of aggregate shocks at different stages of development. Finally, we show how long-run fluctuations in economic productivity may arise endogenously.

PD January 1994. **TI** Testing Dividend Signalling Models. **AU** Bernhardt, Dan; Robertson, J. Fiona; Farrow, Ray. **AA** Bernhardt: Queen's University. Robertson and Farrow: Seattle University. **SR** Queen's Institute for Economic Research Discussion Paper: 895; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 30. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** G00. **KW** Dividends. Signaling. Non-Parametric.
AB This paper derives a key monotonicity property common to dividend signalling models: the greater the rate that dividend income is taxed relative to capital gains income, the greater the value of information revealed by a given dividend yield, and hence the greater the associated excess return. This monotonicity condition allows us to distinguish the hypothesis that dividends are used as a signalling device from the hypothesis that dividends contain information but are not used as Spencian signals. The monotonicity conditions are tested with robust non-parametric techniques. Although we find strong evidence that dividend announcements contain information, we find no evidence to support dividend signalling. The same results are inconsistent with tax-based CAPM arguments.

Bernstein, Jeffrey I.

PD March 1994. **TI** International R&D Spillovers Between U.S. and Japanese R&D Intensive Sectors. **AU** Bernstein, Jeffrey I.; Mohnen, Pierre. **AA** Bernstein: Carleton University and National Bureau of Economic Research. Mohnen: University of Quebec at Montreal. **SR** National Bureau of Economic Research Working Paper: 4682; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** $5.00. **JE** E23, F10, F14, F21. **KW** Productivity. Trade. Investment.
AB A great deal of empirical evidence shows that a country's production structure and productivity growth depend on its own R&D capital formation. As the role of international trade, foreign investment, and international knowledge diffusion grows, domestic production and productivity depend more on the R&D activities of other countries. The purpose of this paper is to empirically investigate the bilateral link between the U.S. and Japanese economies in terms of how R&D capital formation in one country affects the production structure, physical and R&D capital accumulation, and productivity growth in the other country. We find that production processes become less labor intensive as international R&D spillovers grow. In the short-run, R&D intensity is complementary to the international spillover. This relationship persists in the long-run for the U.S., even though the Japanese decrease their own R&D intensity. U.S. R&D capital accounts for 60% of Japanese total factor productivity growth, while Japanese R&D capital contributes 20% to U.S. productivity gains. International spillovers cause social rates of return to be about four times the private return.

Bertschek, I.

PD August 1993. **TI** On Nonparametric Estimation of the Schumpeterian Link Between Innovation and Firm Size: Evidence from Belgium, France, and Germany. **AU** Bertschek, I.; Entorf, H. **AA** Bertschek: CREST and Universite Catholique de Louvain. Entorf: CREST and University of Mannheim. **SR** Unite de Recherche Document

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de Travail ENSAE/INSEE: 9337; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 13. **PR** no charge. **JE** L11, C21, O31, C14. **KW** Innovative Activity. Firm Size.

AB The paper analyzes the Schumpeterian link between innovative activity and firm size by means of the nonparametric Nadaraya-Watson estimator based on kernel density estimation. Four data sets referring to the manufacturing industries of three European countries are available for the analysis. We demonstrate how nonparametric methods can produce more reliable conclusions than conventional methods. For this purpose, the roles of density estimation, bandwidth choice, wild bootstrap and trimming are studied. For the German data set of 1984 and for the French data set we find that small firms and large firms are more innovative than firms of intermediate size. The relation is instead decreasing when estimations are based on the German data set of 1989 and on the Belgian data. In addition, large firms seem to produce innovations more successfully since they have a higher percentage share of sales due to products in the growth phase.

Biswal, Bagala P.

PD December 1993. **TI** Providing Public School Education in Developing Countries: A Theoretical Analysis. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 891; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 49. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** H42, H52, I22. **KW** Private Tutoring. Monitoring.

AB Provision of universal free public education has been argued for in the literature on equity ground. This paper develops a new model of public school education and demonstrates how the presence of private tutoring in developing countries compromises the above argument. The teachers, by shirking at school and supplying private tutoring to the students at a cost, divert the benefits of free public education towards themselves. This model also conforms with the merit-cum-means principle adopted in developing countries to subsidize the education of the poor and high ability students when it is extended to an heterogeneous environment.

Blanchflower, David G.

PD November 1993. **TI** The Legacy of Communist Labor Relations. **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: 180; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 25. **PR** no charge. **JE** J53. **KW** Job Satisfaction. Earnings. ISSP Samples.

AB This paper uses the International Social Science Program (ISSP) surveys for Hungary and a set of Western countries, supplemented with related survey data for East Germany, Poland, and Slovenia, to examine the extent to which workers in traditionally communist societies differ in their attitudes toward work conditions, wage inequality, the role of unions, and the role of the state in determining labor market outcomes. We find sufficient similarity in responses between Hungary and the other previously communist countries and sufficiently marked differences in responses between their responses and those in several Western countries to suggest that communism left an identifiable common legacy in the labor area. The citizens of former communist countries evince a greater desire for egalitarianism than do Westerners, are less satisfied with their jobs, less satisfied with their lives and are more supportive of state interventions. If our interpretation is correct, their move to a market economy will be marked by considerable "social schizophrenia" due to an attitudinal legacy of their communist past.

Blau, Francine D.

PD March 1994. **TI** International Differences in Male Wage Inequality: Institutions versus Market Forces. **AU** Blau, Francine D.; Kahn, Lawrence M. **AA** Blau: University of Illinois and National Bureau of Economic Research. Kahn: University of Illinois. **SR** National Bureau of Economic Research Working Paper: 4678; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 40. **PR** $5.00. **JE** F20, J21, J31. **KW** Wage Structure. Labor.

AB While changes in the demand for skilled labor appear to have led to a widening of the wage structures in many countries during the 1980's, considerable differences in the level of wage inequality remain. In this paper, we examine the sources of these differences, focusing primarily on explaining the considerably higher level of wage inequality in the U.S. We find that the greater overall dispersion of the U.S. wage distribution reflects considerably more compression at the bottom of the distribution in the other countries, but relatively little difference in the degree of wage inequality at the top. While differences in the distribution of measured characteristics help to explain some aspects of the international differences, U.S. labor market prices--that is, higher rewards to labor market skills--are an important factor. Labor market institutions, chiefly the relatively decentralized wage-setting mechanisms in the U.S. compared to other countries, appear to provide the most persuasive explanation for these international differences in prices. In contrast, the pattern of cross-country differences in relative supplies of and demands for skills does not appear to be consistent with the pattern of observed differences in wage inequality.

Blomqvist, A. G.

PD July 1993. **TI** Is Health Care Really a Luxury? **AU** Blomqvist, A. G.; Carter, R. A. L. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9311; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 15. **PR** Canada $7.00; Elsewhere $9.00. **JE** D12, C51, C52, I11. **KW** Income Elasticity. Health Expenditures. Technological Change.

AB Using OECD data we investigate the widely held notion that the income elasticity of expenditure on health care exceeds one. When we employ traditional models and econometric techniques we obtain traditional results. We then expand the model to account for technical change, long run effects and short run dynamics. Modern techniques of inference that take explicit account of the time series nature of the data leave us unable to reject the null hypothesis that the income elasticity is less than one, and lead us to conclude that technological change has been the main factor explaining health care's growing share of GDP.

Blomstrom, Magnus

PD February 1994. **TI** Home Country Effects of Foreign Direct Investment: Evidence from Sweden. **AU** Blomstrom, Magnus; Kokko, Ari. **AA** Blomstrom and Kokko: Stockholm School of Economics. Blomstrom: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4639; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** $5.00. **JE** F21, F23. **KW** Swedish Foreign Investment. Multinationals. Sweden.

AB This paper examines two broad issues related to foreign investment by Swedish multinationals: first the effects of outward foreign direct investment on domestic investment, exports, and employment, and second, the effects on the domestic economy from the increasing division of labor between the parents and foreign affiliates of Swedish MNC's. The paper summarizes and synthesizes the existing empirical evidence on these matters (much of which has hitherto only been available in Swedish) and discusses some possible long run effects that have not received much attention in the literature.

Bloom, David E.

PD March 1994. **TI** The Changing Labor Market Position of Canadian Immigrants. **AU** Bloom, David E.; Grenier, Gilles; Gunderson, Morley. **AA** Bloom: Columbia University and National Bureau of Economic Research. Grenier: University of Ottawa. Gunderson: University of Toronto. **SR** National Bureau of Economic Research Working Paper: 4672; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 22. **PR** $5.00. **JE** D21, J23, J30, J61. **KW** Gender. Immigration. Earnings. Minorities.

AB This paper uses pooled 1971, 1981, and 1986 Canadian census data to evaluate the extent to which (1) the earnings of Canadian immigrants at the time of immigration fall short of the earnings of comparable Canadian-born individuals, and (2) immigrants' earnings grow more rapidly over time than those of the Canadian-born. Variations in the labor market assimilation of immigrants according to their gender and country of origin are also analyzed. The results suggest that recent immigrant cohorts have had more difficulty being assimilated into the Canadian labor market than earlier ones, an apparent consequence of recent changes in Canadian immigration policy, labor market discrimination against visible minorities, and the prolonged recession of the early 1980's.

Blundell, R.

PD June 1993. **TI** An Iterated Moment Estimator for Conditionally Linear Equation Systems: A Note. **AU** Blundell, R.; Robin, J. M. **AA** Blundell: University College London and Institute for Fiscal Studies. Robin: INRA. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9342; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 7. **PR** no charge. **JE** C13, C12. **KW** Nonlinear Systems. Iterated Moment Estimator. Conditional Linearity.

AB Nonlinear simultaneous equation systems which are conditionally linear in unknown parameters can be estimated by an iterated moment estimator. Conditional linearity arises in many popular systems. The proposed iterated moment estimator is shown to be consistent and its asymptotic efficiency properties are derived.

Bonanno, Giacomo

PD June 1994. **TI** The Logic of Shared Belief, Public Rumor, Public Shared Belief and Common Belief. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 94-10; Department of Economics, University of California at Davis, CA 95616-8578. **PG** 36. **PR** $3.00 U.S. and Canada. $4.00 International. **JE** C57. **KW** Modal Logic. Shared Belief. Common Belief. Common Knowledge.

AB We provide a very general syntactic (and semantic) analysis of the concepts of shared belief, public, rumor, public shared belief, common belief and common knowledge. Semantically, the notion of common knowledge is captured by the meet of the agents' information partitions. This is itself a partition and, therefore, can be treated formally as the information partition of an (n + 1)th agent, call it agent *. We consider a modal logic with (n + 1) (belief or knowledge) operators and characterize each individual component of a complete axiomatization of the notion of common belief (or knowledge). Soundness and completeness results are proved throughout.

Bonnal, L.

PD March 1994. **TI** Evaluating the Impact of French Employment Policies on Individual Labour Market Histories. **AU** Bonnal, L.; Fougere, D.; Serandon, A. **AA** Bonnal: Universite d' Orleans. Fougere: CNRS and CREST. Serandon: Universite des Sciences Sociales de Toulouse. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9417; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 41. **PR** no charge. **JE** J68, J64. **KW** Employment Policy. Young Workers. Transition Model.

AB This paper deals with the evaluation of some public employment policies set up in France during the eighties to improve the labor market prospects of unqualified young workers. The evaluation implemented in our paper is restricted to the impact of such public measures on subsequent employment rates of recipients. The econometric study is conducted on non-experimental longitudinal microdata collected over the years 1986 to 1988 and describing individual labor market histories. It focuses on the effects of such programs on individual reemployment rates, but also on probabilities to (re)enter unemployment once a job is found.

Bordo, Michael D.

PD February 1994. **TI** France and the Bretton Woods International Monetary System: 1960 to 1968. **AU** Bordo, Michael D.; Simard, Dominique; White, Eugene N. **AA** Bordo and White: Rutgers University and National Bureau of Economic Research. Simard: Rutgers University. **SR** National Bureau of Economic Research Working Paper: 4642; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 24. **PR** $5.00. **JE** E65, F31, F33. **KW** Bretton Woods Collapse. France. Bretton Woods.

AB We reinterpret the commonly held view in the U.S. that France, by following a policy from 1965 to 1968 of deliberately converting their dollar holdings into gold helped perpetuate the collapse of the Bretton Woods International Monetary System. We argue that French international monetary policy under

Charles de Gaulle was consistent with strategies developed in the interwar period and the French Plan of 1943. France used proposals to return to an orthodox gold standard as well as conversions of its dollar reserves into gold as tactical threats to induce the United States to initiate the reform of the international monetary system towards a more symmetrical and cooperative gold-exchange standard regime.

Borensztein, Eduardo

PD January 1994. **TI** The Macroeconomic Determinants of Commodity Prices. **AU** Borensztein, Eduardo; Reinhart, Carmen M. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/9; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 14. **PR** not available. **JE** E30, F39. **KW** Commodity Prices.

AB The "traditional structural approach" to the determination of real commodity prices has relied exclusively on demand factors as the fundamentals that explain the behavior of commodity prices. This framework, however, has been unable to explain the marked and sustained weakness in commodity prices during the 1980's and 1990's. This paper extends that framework in two important directions: First, it incorporates commodity supply in the analysis, capturing the impact on prices of the sharp increases in commodity exports of developing countries during the debt crisis of the 1980's. Second, we take a broader view of "world" demand that extends beyond the industrial countries and includes output developments in Eastern Europe and the former Soviet Union. The empirical results support these extensions, as both the fit of the model improves substantially and, more importantly, its ability to forecast increases markedly.

Borjas, George J.

PD February 1994. **TI** Long-Run Convergence of Ethnic Skill Differentials. **AA** University of California, San Diego and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4641; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** $5.00. **JE** J31, N30. **KW** Skill Differentials by Ethnicity. Ethnic Skill Differentials.

AB This paper investigates if the ethnic skill differentials introduced into the United States by the inflow of very dissimilar immigrant groups during the Great Migration of 1880-1910 disappeared during the past century. An analysis of the 1910, 1940, and 1980 Censuses and the General Social Surveys revealed that ethnic differentials converge slowly. It might take four generations, or roughly 100 years, for the skill differentials introduced by the Great Migration to disappear. The analysis also indicates that the economic mobility experienced by American-born blacks resembles that of the white ethnic groups that made up the Great Migration.

Bosq, D.

PD October 1993. **TI** Non-Parametric Estimation of the Chaotic Function and the Invariant Measure of a Dynamical System. **AU** Bosq, D.; Guegan, D. **AA** Bosq: Universite Paris VI. Guegan: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9345; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 6. **PR** no charge. **JE** C14. **KW** Chaos Estimation. Nonparametric Estimation.

AB Let (X sub t) be a vector valued stochastic process defined by a discrete time dynamical system via the functional relationship: X sub t = phi(X sub t-1) where t = 1,2,..., where phi is some nonlinear function preserving a probability measure say mu, and where X sub 0 is a given random variable. We assume that phi is a chaotic transformation. Let X sub 0, X sub 1, ..., X sub n-1, be strongly correlated random variables, then we estimate the function phi and the density f of mu without using special condition on the analytical form of phi. We prove, under some general regular assumptions, that the nonparametric estimates phi sub n (x) of phi(x) and f sub n of f are convergent.

Bossert, W.

PD April 1994. **TI** Redistribution and Compensation. **AU** Bossert, W.; Fleurbaey, M. **AA** Bossert: Universite de Waterloo. Fleurbaey: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9419; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 14. **PR** no charge. **JE** D63, D31. **KW** Egalitarian Equivalent. Conditional Equality. Redistribution.

AB In a model where individual incomes depend on the agent's characteristics, we provide characterizations of several redistribution mechanisms. These mechanisms are designed to eliminate the effect of characteristics that are to be considered "irrelevant", while preserving the influence of "relevant" characteristics on individual incomes. The mechanisms discussed here are egalitarian-equivalent and conditionally egalitarian mechanisms, as well as (generalized) averaging versions of these rules.

Brainard, S. Lael

PD December 1993. **TI** The Political Economy of Declining Industries: Senescent Industry Collapse Revisited. **AU** Brainard, S. Lael; Verdier, Thierry. **AA** Brainard: Massachusetts Institute of Technology and National Bureau of Economic Research. Verdier: CERAS and DELTA - ENS. **SR** National Bureau of Economic Research Working Paper: 4606; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** F13. **KW** Political Economy of Trade. Tariff Protection.

AB One of the most robust empirical regularities in the political economy of trade is the persistence of protection. This paper explains persistent protection in terms of the interaction between industry adjustment, lobbying, and the political response. Faced with a trade shock, owners of industry-specific factors can undertake costly adjustment, or they can lobby politicians for protection and thereby mitigate the need for adjustment. The choice depends on the returns from adusting relative to those from lobbying. By introducing an explicit lobbying process, it can be shown that the level of tariffs is an increasing function of past tariffs. Since current adjustment diminishes future lobbying intensity, and protection reduces adjustment, current protection raises future protection. This simple lobbying feedback effect has an important dynamic resource allocation effect: declining industries contract more slowly over time and never fully adjust. The paper also considers the symmetric case of lobbying in growing industries.

Brewer, Dominic J.

TI Do Teachers' Race, Gender, and Ethnicity Matter?: Evidence From NELS88. **AU** Ehrenberg, Ronald G.;

Goldhaber, Daniel D.; Brewer, Dominic J.

Brewer, Marilynn B.

TI Intellectual Capital and the Birth of U.S. Biotechnology Enterprises. **AU** Zucker, Lynne G.; Brewer, Marilynn B.; Darby, Michael R.

Bronsard, C.

PD March 1994. **TI** Evidence on Corporate Private Debt Finance and the Term Structure of Interest Rates. **AU** Bronsard, C.; Rosenwald, F.; Salvas-Bronsard, L. **AA** Bronsard and Salvas-Bronsard: Universite de Montreal. Rosenwald: INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9412; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 14. **PR** no charge. **JE** C35, G32, D92. **KW** Financial Contract. Long-Term Debt. Short-Term Debt.

AB The purpose of this paper is the empirical analysis of corporate private debt finance. Specifically, we test a debt finance model in which the firm and the bank decide on a financial contract characterized by short-term debt or long-term debt or both short-term and long-term debt. This model is a priori consistent with the theoretical developments ranging from the pure expectations theory to the debt-looking contract theory, and consequently allows a posteriori for a discussion of their empirical relevance. To test this model we make use of the business surveys on the industrial firms' treasury statement conducted by the French National Institute of Statistics (INSEE). These surveys are biannual, cover around two thousand firms and contain mostly qualitative data. In particular, short-term and long-term borrowings are qualitative data. In this data set, interest rates are individualized and there is a large variability of interest rates across firms.

Brooks, Robert D.

PD November 1993. **TI** Testing Hildreth-Houck Against Return to Normalcy Random Regression Coefficients. **AU** Brooks, Robert D.; King, Maxwell L. **AA** Brooks: Royal Melbourne Institute of Technology. King: Monash University. **SR** Monash Department of Econometrics Research Working Paper: 19/93; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 13. **PR** no charge. **JE** C12. **KW** Random Coefficients. Nonnormal Errors. Likelihood Ratio Test.

AB In the context of the linear regression model, this paper considers testing for a single Hildreth-Houck random coefficient against the alternative that the coefficient follows the return to normalcy model. We attempt to construct a point-optimal invariant test but find that we have to resort to the class of approximate point-optimal invariant (APOI) tests introduced by King (1987). Empirical power calculations show that these tests have good small-sample properties compared to the likelihood ratio and Wald tests. A particular APOI test is recommended and is found to be remarkably robust to nonnormality.

Brown, William

TI Does the Regulatory System Matter?: A Comparison of Workplace Industrial Relations in Australia and Britain. **AU** Whitfield, Keith; Marginson, Paul; Brown, William.

Brunner, Allan D.

PD May 1994. **TI** The Federal Funds Rate and the Implementation of Monetary Policy: Estimating the Federal Reserve's Reaction Function. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 466; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 42. **PR** no charge. **JE** E52, C32. **KW** Monetary Policy. Reaction Functions. Targets and Instruments.

AB Several recent studies have reached quite different conclusions about which variable is the best indicator of the stance of monetary policy. These differences likely reflect varying assumptions about bank and Federal Reserve behavior. This paper takes a detailed and comprehensive look at the implementation of monetary policy and the identification of monetary policy shocks. The paper first outlines a general analytical model for studying and evaluating monetary policy procedures. The model is then used to estimate both the Fed's operational policy objectives and its intermediate objectives. The results can be summarized as follows: First, monetary policy shocks over the past several years have primarily affected the federal funds rate, even during periods when the Fed was reportedly targeting reserves. In addition, the paper finds a statistically-significant liquidity effect in all periods examined, although the effect is quite small. Finally, there is statistical evidence that suggests that the Fed's intermediate objectives have not been stable over time, and these differences appear to be economically important. Taken together, these results indicate that while monetary policy shocks can be uncovered by regressing the funds rate on appropriate variables in the Fed's information set, the reaction function should be estimated over subperiods rather than over the entire 1959-1993 period.

Bryson, Jay H.

PD May 1994. **TI** Fiscal Policy Coordination and Flexibility Under European Monetary Union: Implications for Macroeconomic Stabilization. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 467; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 23. **PR** no charge. **JE** F42. **KW** Policy Coordination. Monetary Union. Macroeconomic Stabilization.

AB Some writers have proposed that under European Monetary Union fiscal policies should be coordinated to reduce the degree of fiscal activism required for macroeconomic stabilization. The paper shows that, in theory, fiscal policy coordination may lower the degree of fiscal flexibility needed to stabilize a common supply shock. However, fiscal policy coordination may raise the degree of fiscal flexibility needed to stabilize an asymmetric demand shock. These theoretical findings are supported by simulations performed with the Multi-Country Model of the Federal Reserve Board. The results suggest that fiscal policy coordination under EMU may require more fiscal activism rather than less. The results also show that, regardless of the shock, fiscal policy coordination among EMU members provides more macroeconomic stabilization to the United States. However, due to the small spillovers between the EC and the United States, the magnitude of this increased stabilization is relatively trivial.

Bulow, Jeremy

PD January 1994. **TI** Auctions vs. Negotiations. **AU** Bulow, Jeremy; Klemperer, Paul. **AA** Bulow: Stanford University and National Bureau of Economic Research. Klemperer: St. Catherine's College. **SR** National Bureau of Economic Research Working Paper: 4608; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** $5.00. **JE** D44. **KW** Auctions.

AB Which is the more profitable way to sell a company: a public auction or an optionally structured negotiation with a smaller number of bidders? We show that under standard assumptions the public auction is always preferable, even if it forfeits all the seller's negotiating power including the ability to withdraw the object from sale, provided that it attracts at least one extra bidder. An immediate public auction also dominates negotiating while maintaining the right to hold an auction subsequently with more bidders. The results hold for both the standard independent private values model and a common values model. They suggest that the value of negotiating skill is small relative to the value of additional competition.

Burgess, Simon

PD April 1994. **TI** Where Did Europe Fail? A Disaggregate Comparison of Net Job Generation in the USA and Europe. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 192; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 22. **PR** no charge. **JE** J22, J60. **KW** Employment Growth. International Comparison. Flexibility.

AB One outstanding macroeconomic feature of the past twenty years is the divergent employment growth of the USA and Europe. This paper investigates this, highlighting the nature of the differences and focussing on the flexibility of labor markets and the capability of an economy to reallocate labor. The main results are (1) there is weak evidence that the U.S. is better at reallocating jobs than Europe, (2) investigating the cycle, the main contrast between U.S. industries and the European industries is in the upswing, (3) employment growth experience in a typical U.S. industry is more diverse than in the European counterpart.

PD April 1994. **TI** The Reallocation of Employment and the Role of Employment Protection Legislation. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 193; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 61. **PR** no charge. **JE** J20, J60, J68. **KW** Employment Protection. Reallocation.

AB Output and productivity is affected by the allocation of workers between firms, industries, and occupations as well as by total employment. Policy affects the ability of markets to carry out the reallocation of factors, and the aim of facilitating this process may involve reducing restraints on the ability of firms to hire and fire labor. This is the connection between the reallocation of labor and Employment Protection Legislation (EPL). This paper addresses two questions: first, is there any evidence that the tightness of a country's EPL does affect the speed with which labor is reallocated? Second, do differences in reallocation speed matter quantitatively for the country's welfare? To address the first question, we define five alternative measures of reallocation and apply these measures to our sample of ten of the largest OECD countries, disaggregated into 20 industries, over a period of 18 years, 1971-1988. The results provide some support for the idea of a link between EPL and the speed of labor reallocation. On the second question, some preliminary investigations show that this may not be a trivial issue. The qualitative answer is clear: an economy which is slow in moving labor from low to high productivity firms will produce less output and exhibit lower aggregate productivity growth; a simple model suggests that the magnitude of this effect may be significant.

Burnside, Craig

PD March 1994. **TI** Factor Hoarding and the Propagation of Business Cycle Shocks. **AU** Burnside, Craig; Eichenbaum, Martin. **AA** Burnside: University of Pittsburgh. Eichenbaum: Northwestern University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4675; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** $5.00. **JE** E32, E37. **KW** Real Business Cycle. Capital Utilization. Growth.

AB This paper analyzes the role of variable capital utilization rates in propagating shocks over the business cycle. To this end we formulate and estimate an equilibrium business cycle model in which cyclical capital utilization rates are viewed as a form of factor hoarding. We find that variable capital utilization rates substantially magnify and propagate the impact of shocks to agents' environments. The strength of these propagation effects is evident in the dynamic response functions of various economy wide aggregates to shocks in agents' environments, in the statistics that we construct to summarize the strength of the propagation mechanisms in the model, and in the volatility of exogenous technology shocks needed to explain the observed variability in aggregate U.S. output. Other authors have argued that standard Real Business Cycle (RBC) models fail to account for certain features of the data because they do not embody quantitatively important propagation mechanisms. These features include the observed positive serial correlation in the growth rate of output, the shape of the spectrum of the growth rate of real output, and the correlation between the forecastable component of real output and various other economic aggregates. Allowing for variable capital utilization rates substantially improves the ability of the model to account for these features of the data.

Calvo, Guillermo A.

PD January 1994. **TI** Money Demand, Bank Credit, and Economic Performance in Former Socialist Economies. **AU** Calvo, Guillermo A.; Kumar, Manmohan S. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/3; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 22. **PR** not available. **JE** G21, G38, H30, P27. **KW** Money Demand. Bank Credit.

AB This paper examines factors determining the allocation of bank credit to the enterprise sector and the implications of this allocation for aggregate supply and macroeconomic performance in the former socialist countries. It first develops a model to explain how changes in demand for money by the household sector directly influence the availability of working capital, which in turn, determines aggegate output and employment. It then examines factors influencing the allocation of bank credit between enterprises and other borrowers, in particular, the government. Finally, the paper discusses relative merits of bank finance and equity capital for medium- and long-term investments, and constraints on the development of efficient equity markets.

Caplin, Andrew

PD March 1994. **TI** The Economics of Adjustment. **AU** Caplin, Andrew; Leahy, John. **AA** Caplin: Columbia University and National Bureau of Economic Research. Leahy: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4687; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 14. **PR** $5.00. **JE** D83, E00. **KW** Information. Learning.
AB In this paper we argue that many topics in macroeconomics can be viewed as part of the broader theory of the economics of adjustment. We argue that existing approaches to the economics of adjustment take a very narrow view of the role of information. We outline an approach to this topic that stresses the role of learning and information externalities, and discuss through examples how these concerns alter the qualitative nature of the adjustment process. In particular, there appears to be a general bias toward the underprovision of information in a variety of settings which leads to inefficient adjustment.

Carruth, Alan

PD February 1994. **TI** Unemployment, Oil Prices and the Real Interest Rate: Evidence From Canada and the UK. **AU** Carruth, Alan; Hooker, Mark; Oswald, Andrew. **AA** Carruth: University of Kent. Hooker: Dartmounth College. Oswald: London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 188; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 57. **PR** no charge. **JE** E24. **KW** Unemployment. International.
AB There is still little agreement about what caused the large movements in unemployment in the industrialized nations in the 1970's and 1980's. This paper constructs a simple model in which the equilibrium rate of unemployment depends upon the real price of oil. When confronted with data from Canada and the U.K., there is some support for the model's predictions. Granger-causality tests and regression results suggest that the real oil price is especially important. If a dynamic model is estimated up to the start of the 1980's it successfully predicts (out of sample) the behavior of unemployment over the ensuing decade. Nevertheless, an unexplained secular trend in unemployment is visible in the data.

Carter, R. A. L.

TI Is Health Care Really a Luxury? **AU** Blomqvist, A. G.; Carter, R. A. L.

Casella, Alessandra

PD April 1994. **TI** Can Foreign Aid Accelerate Stabilization? **AU** Casella, Alessandra; Eichengreen, Barry. **AA** Casella: Columbia University and National Bureau of Economic Research. Eichengreen: University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4694; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** E32, F35. **KW** Stabilization. Foreign Aid.
AB This paper studies the effect of foreign aid on economic stabilization. Following Alesina and Drazen (1991), we model the delay in stabilizing as the result of a distributional struggle: reforms are postponed because they are costly and each distributional faction hopes to reduce its share of the cost by outlasting its opponents in obstructing the required policies. Since the delay is used to signal each faction's strength, the effect of the transfer depends on the role it plays in the release of information. We show that this role depends on the timing of the transfer. Aid decided or transferred sufficiently early into the game leads to earlier stabilization, whereas aid decided or transferred too late is destabilizing and encourages further postponement of reforms.

Cases, C.

PD October 1993. **TI** Individual Heterogeneity in Duration Models with Segmentation. **AU** Cases, C.; Lolivier, S. **AA** CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9344; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 10. **PR** no charge. **JE** C13, C41, J64. **KW** Unemployment. Job Search. Labor Market Segmentation.
AB The purpose of this study is the introduction of two kinds of heterogeneity in the estimation of reduced form duration models. The first one takes into account more than one destination from unemployment: inactivity and two segments of the labor market. The second one consists in introducing an individual heterogeneity in addition to exogenous variables. In the estimation of the model, we reject the usual hypothesis of a decreasing hazard function. This empirical evidence seems more related with a mover-stayer effect than with a screening effect of long durations.

Cassard, Marcel

PD January 1994. **TI** ERM Money Supplies and the Transition to EMU. **AU** Cassard, Marcel; Lane, Timothy; Masson, Paul R. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/1; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 20. **PR** not available. **JE** E41, E50. **KW** European Monetary Unit. Core ERM.
AB Stage 2 of the monetary union in Europe is to involve greater monetary cooperation. The paper examines the case for using the M3 money supply aggregated across "core ERM" countries--those with low inflation and absence of realignments--as a vehicle for that cooperation. First, the existence of a satisfactory long-run money demand relationship and short-run dynamic equation is verified. The resulting demand equations have at least as satisfactory econometric properties as those for France and Germany separately. Second, the predictive power of the core-ERM aggregate relative to French and German inflation is examined; it is shown that the aggregate helps to predict German inflation over and above the predictive power of German M3. Thus, core-ERM M3 has value as an indicator for the anchor country in hitting its own domestic objective, quite separate from any concern about economic developments in neighboring countries.

Centre for Economic Performance, London

PD November 1993. **TI** Review of the Year's Work,

1992-1993. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 174; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 87. **PR** no charge. **JE** A00. **KW** Economic Review.
AB not available.

Chaloupka, Frank J.

PD February 1994. **TI** Do Youths Substitute Alcohol and Marijuana? Some Econometric Evidence. **AU** Chaloupka, Frank J.; Laixuthai, Adit. **AA** University of Illinois and National Bureau of Economic Research. Laixuthai: University of Illinois. **SR** National Bureau of Economic Research Working Paper: 4662; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** $5.00. **JE** D12. **KW** Substance Abuse.
AB Data from the 1982 and 1989 Monitoring the Future Surveys are used to examine the substitutability of alcoholic beverages and marijuana among youths. Beer prices and minimum legal drinking ages are used as measures of the full price of alcohol, while an indicator of marijuana decriminalization and its money price capture the full price of marijuana. Results indicate that drinking frequency and heavy drinking episodes are negatively related to beer prices, but positively related to the full price of marijuana. The implications of this substitution for one of the consequences of youth substance abuse, driving while intoxicated, is examined using information on youth non-fatal accidents taken from the surveys and on youth fatal motor vehicle accidents constructed from the Fatal Accident Reporting System. These results indicate that the net effect of an increase in the full price of alcoholic beverages on the probability of a youth traffic crash is negative. However, the opposite is found for marijuana. That is, the results imply that the reduction in accidents resulting from substitution away from alcoholic beverages and other intoxicating substances to marijuana as its full price is lower more than offsets the increase in accidents related to marijuana use.

Chesnutt, Thomas W.

PD November 1993. **TI** Revenue Instability Induced by Conservation Rate Structures: An Empirical Investigation of Coping Strategies. **AU** Chesnutt, Thomas W.; Bamezai, Anil; Hanemann, W. Michael. **AA** Chesnutt and Bamezai: A&N Technical Services, Inc., Santa Monica. Hanemann: University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 695; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 15. **PR** $5.00. **JE** Q25. **KW** Water Supply. Water Conservation. Revenue Stability.
AB Water suppliers have been adopting new rate structures to promote conservation. The shift away from rates based on historical average cost toward rates based on marginal cost has been motivated by the desire to send consumers the "right" price signal about the need to conserve drinking water. The shift toward conservation rate structures, though perhaps providing better incentives to use scarce water resources wisely, has predictable effects - it changes who pays what and it increases the variability of future revenue streams to the water agency. Revenue instability creates direct costs for water suppliers in the form of increased costs for borrowing, to say nothing of the indirect but very real costs of more complicated planning to provide for a reliable supply of water in the future. This study empirically examines the experience of water agencies that have adopted conservation rate structures and proposes ways for using quantitative tools to: 1) measure and cope with the added uncertainty; and 2) make explicit the magnitude of tradeoffs between revenue stability, equity, and the provision of incentives for efficient use of water resources.

Chevalier, Judith A.

PD January 1994. **TI** Capital Market Imperfections and Countercyclical Markups: Theory and Evidence. **AU** Chevalier, Judith A.; Scharfstein, David S. **AA** Chevalier: Harvard University and National Bureau of Economic Research. Scharfstein: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4614; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 34. **PR** $5.00. **JE** D21, D43, E22, E32. **KW** Countercyclical Markups.
AB During recessions, output prices tend to rise relative to wages and raw-materials prices. One explanation of this fact is that imperfectly competitive firms compete less aggressively during recessions- that is, markups of price over marginal cost are countercyclical. We present a model in which markups are countercyclical because of capital-market imperfections. During recesions, liquidity-constrained firms try to boost short-run profits by raising prices to cut their investment in market share. We show that during regional and macroeconomic recessions, the most financially constrained supermarket chains tend to raise their prices relative to less financially constrained chains.

Chirinko, Robert S.

PD November 1993. **TI** Why Does Liquidity Matter in Investment Equations? **AU** Chirinko, Robert S.; Schaller, Huntley. **AA** Chirinko: Federal Reserve Bank of Kansas City. Schaller: Carleton University. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-13; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 49. **PR** no charge. **JE** E22. **KW** Liquidity. Investments.
AB That liquidity variables affect investment spending is widely accepted. Despite important recent empirical work, questions remain concerning the interpretation of liquidity variables in investment equations and the sources and economic importance of finance constraints. These questions are addressed by estimating a variety of econometric models that exploit distinctive Canadian institutional features to identify firms that face relatively severe information problems. The initial econometric evidence confirms the existence of finance constraints, and identifies their source as the problems faced by firms in credibly communicating private information to outsiders. This conclusion is robust to biases from the capitalization of finance constraints into asset prices, scale economies, or imperfect competition, which are accounted for directly in the econometric specifications.

Chung, Tai-Yeong

PD November 1992. **TI** Efficiency of Comparative Negligence: A Game Theoretic Analysis. **AA** University of Western Ontario. **SR** University of Western Ontario

Department of Economics Research Report: 9215; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 12. **PR** Canada $5.00; Elsewhere $7.00. **JE** K13, C72. **KW** Contributory Negligence. Negligence Rules.
AB The widespread shift from contributory negligence to comparative negligence in the twentieth century has spurred scholars in law and economics to examine the strength and weakness of alternative negligence rules. The conventional wisdom on this issue is that contributory negligence is economically more efficient than comparative negligence. This result has led to several scholars to investigate other environments in which the efficiency of comparative negligence can be shown. Daniel Orr cast another vote for comparative negligence by providing a game theoretic analysis in which relative efficiency of comparative negligence and contributory negligence were examined. Orr showed that comparative negligence is more efficient than contributory negligence in both unilateral and interactive precaution cases. His result is puzzling because it was shown in a full information environment and thus is not consistent with the first central conclusion of the existing literature. The purpose of this Article is to clarify these issues by providing a correct game theoretic analysis of negligence rules.

Church, Jeffrey

PD December 1993. **TI** Strategic Entry Deterrence: Complementary Products as Installed Base. **AU** Church, Jeffrey; Gandal, Neil. **AA** Church: University of Calgary. Gandal: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 16/93; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 29. **PR** no charge. **JE** L13. **KW** Installed Base. Network Externalities. Complementary Products.
AB In this paper, we assess the effect of hardware control of software provision in markets in which the consumption benefit of a durable or hardware good is a function of the variety of complementary products or software available. We show that when an incumbent can commit to an installed base of software, the market outcome is characterized by excess inertia. When the monopoly premium is small, the strategic behavior on the part of the incumbent will result in either standardization on the technology of the incumbent or an equilibrium where both hardware technologies are viable, even though the socially preferred outcome is standardization on the technology of the entrant. When the monopoly premium is large, the technology of the incumbent will be the market standard, even though the socially preferred outcome is either standardization on the technology of the entrant or a variety outcome.

Clarete, Ramon L.

PD January 1994. **TI** Evaluating Labour Adjustment Costs from Trade Shocks: Illustrations for the U.S. Economy Using an Applied General Equilibrium Model With Transactions Costs. **AU** Clarete, Ramon L.; Trela, Irene; Whalley, John. **AA** Clarete: University of the Philippines. Trela and Whalley: University of Western Ontario. Whalley: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4628; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** $5.00. **JE** D58, F14, J30. **KW** Labor Adjustment Costs. Trade Shocks. Applied General Equilibrium.
AB This paper presents a general equilibrium approach to calculating labor adjustment costs induced by trade policy changes or external sector shocks, which we illustrate by analyzing the adjustment consequences of eliminating quotas and tariffs on U.S. imports. In our approach, factor adjustments in the presence of transactions costs are endogenously determined within the equilibrium structure. The conventional way of calculating such labor adjustment costs is to use full equilibrium models, which exclude adjustment costs, and apply exogenous estimates of duration of unemployment to implied intersectoral labor reallocations. This conventional approach tends to overstate the amount of labor that moves to other sectors and hence introduces an upward bias to estimates of adjustment costs. Our results suggest that concerns over adjustment problems should focus as much on the consequences of adjustment costs in impeding factor mobility, as on the magnitude of the adjustment costs themselves. Compared to the redistributive effects they induce by inhibiting labor movement in response to policy or other changes, these costs may be small.

Clarida, Richard

PD February 1994. **TI** Sources of Real Exchange Rate Fluctuations: How Important are Nominal Shocks? **AU** Clarida, Richard; Gali, Jordi. **AA** Clarida: Columbia University and National Bureau of Economic Research. Gali: Columbia University. **SR** National Bureau of Economic Research Working Paper: 4658; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 47. **PR** $5.00. **JE** F31, E10. **KW** Monetary Shocks. Saving. Investment.
AB This paper investigates empirically and attempts to identify the sources of real exchange rate fluctuations since the collapse of Bretton Woods. The paper's first two sections survey and extend earlier, non-structural empirical work on this subject by Campbell and Clarida (1987), Meese and Rogoff (1988), and Cumby and Huizinga (1990). The paper's main contribution is to build and estimate a three equation open macro model in the spirit of Dornbusch (1976) and Obstfeld (1985) and to identify the model's structural shocks (to demand, supply, and money) using the approach pioneered by Blanchard and Quah (1989). For two of the four countries we study, Germany and Japan, our structural estimates imply that monetary shocks, to money supply as well as to the demand for real money balances, explain a substantial amount of the variance of real exchange rates relative to the dollar. We find that demand shocks, to national saving and investment, explain the majority of the variance in real exchange rate fluctuations, while supply shocks explain very little. The model's estimated short-run dynamics are strikingly consistent with the predictions of the simple textbook Mundell-Fleming model.

Clement, E.

PD September 1993. **TI** Linear Factor Models and the Term Structure of Interest Rates. **AU** Clement, E.; Gourieroux, C.; Monfort, A. **AA** Clement: CREST and Paris IX University. Gourieroux: CREST and CEPREMAP. Monfort: INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9331; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 23. **PR** no charge. **JE** E43, C32, C51. **KW** Interest Rates. Term Structure.
AB In this paper a statistical model for the determination of

the term structure of interest is presented. This model is discrete-time and defines the zero-coupon bond prices as a linear combination of factors with predetermined coefficients. When the number of factors is small the conditions based on the no-arbitrage assumption are easy to determine and to interpret. The model with constant coefficients is studied in detail from a statistical point of view and such a model seems rich enough to permit a good fit.

PD December 1993. **TI** Inference Statistique des Processus de Diffusion. **AA** CREST and Universite Paris IX. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9404; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 22. **PR** no charge. **JE** C13, C14, C22. **KW** Diffusion Processes. Nonparametric Estimation. Statistical Inference.

AB In this paper, we present a review of statistical methods for diffusion processes. Parametric estimation (such as maximum likelihood estimation) as well as nonparametric estimation (density estimation) are exposed. For estimation purpose, we usually distinguish the trend from the diffusion coefficient. However, in this paper, the approach consists in classifying estimation methods according to the asymptotic scheme or in other words the observation framework. The paper is written in French.

Collins, Sean S.

PD June 1994. **TI** Avoiding Runs in Money Market Mutual Funds: Have Regulatory Reforms Reduced the Potential for a Crash? **AU** Collins, Sean S.; Mack, Phillip R. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-14; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 30. **PR** no charge. **JE** G14, G23, G28. **KW** Money Market Mutual Funds. SEC. Systematic Risk. Event Studies. Mutual Funds.

AB Since their inception in the early 1970's, money market mutual funds have been relatively safe investments. Indeed, the money fund industry itself has noted that no investor has ever lost a dollar in a money market fund. Nevertheless, money funds have been buffeted by a series of defaults on commercial paper backing their assets. These losses would have been passed on to money fund investors, but stockholders of the management firms advising these money funds absorbed the losses. To reduce risks to unwary investors, in 1991 the Securities and Exchange Commission tightened the rules under which money market funds operate. This paper uses panel data on over 200 money funds to examine the effects of these regulatory changes on money funds. We find that these changes did in fact reduce the riskiness of money funds, but, at the same time, drove down their yields by an average of about 10 basis points. The new rules also significantly prevented some money funds from extending their average maturities over months that saw the steepest yield curve in recent history. Another group of funds were able to offset some of the new, tighter provisions of the Rule by extending their average maturities beyond their previous preferred level. Finally, the amendments had disparate effects; money funds that held mostly commercial paper were hardest hit, while those that held mostly short-term Treasury securities were likely little affected.

Comte, F.

PD October 1993. **TI** Long Memory Continuous Time Models. **AU** Comte, F.; Renault, E. **AA** Comte: CREST and University of Paris I. Renault: University of Toulouse I. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9406; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 31. **PR** no charge. **JE** C22, C32, C13. **KW** Long Memory Models. Fractional Processes. Moving Average.

AB This paper presents a new family of long memory models: the continuous time moving average fractional processes. The continuous time framework allows us to reconcile two competitive types of modeling: fractional intergration of ARMA processes and fractional Brownian Motions. Some well-known empirical evidence on macroeconomic and financial time series (variability of forward rates, aggregation of responses across heterogeneous agents) are well-captured by this continuous time modeling. Moreover, the usual statistical tools for long memory series and for Stochastic Differential Equations can be jointly applied in this setting.

PD February 1994. **TI** Simulation and Estimation of Long Memory Continuous Time Models. **AA** CREST and University of Paris I. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9410; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 21. **PR** no charge. **JE** C13, C15, C22. **KW** Simulation Estimation. Monte-Carlo Methods. Long Memory.

AB In this paper, some general properties of long memory continuous time processes are recalled and properties of the paths of such processes are proved or checked. Three methods of simulation are studied and compared. They allow us to present illustrations of the previous general properties. Then, two methods of estimation of the parameters of such a model from a discrete sample are compared through Monte-Carlo experiments: a usual general global method and a specific two-stage one.

Cosh, Andy D.

PD July 1993. **TI** Takeover Success or Failure? The Experience of Large and Small U.K. Companies. **AU** Cosh, Andy D.; Hughes, Alan; Kambhampati, Uma. **AA** Cosh and Hughes: University of Cambridge. Kambhampati: University of East Anglia. **SR** University of Cambridge Small Business Research Centre Working Papers: 30; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 10. **PR** $10.00 (L5.00); checks payable to University of Cambridge. **JE** G34, L23. **KW** Mergers. Acquisitions. Small Companies.

AB This paper uses statistical and case study analyses of acquisitions involving both large quoted and small unquoted companies in the UK to evaluate pre-merger characteristics and post-merger success. It is found that small acquired companies are (compared to their industries) relatively faster growing and more profitable than larger companies. For both groups performance was insignificantly inferior after merger than before. In both large and small acquisitions there is considerable continuity in board membership after merger. Merger "failures" are more likely in those cases where pre-merger performance was above average.

PD July 1993. **TI** Size, Growth and Failure: An Analysis of the UK Quoted and Unquoted Company Sectors.

AU Cosh, Andy D.; Hughes, Alan; Kambhampati, Uma. **AA** Cosh and Hughes: University of Cambridge. Kambhampati: University of East Anglia. **SR** University of Cambridge Small Business Research Centre Working Papers: 32; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 12. **PR** $10.00 (L5.00); checks payable to University of Cambridge. **JE** D92, D21, L23. **KW** Company Growth. Firm Failure. Firm Size.

AB This paper uses a large stratified sample of companies covering the whole of the UK quoted and unquoted sectors to examine the stylized facts of the age, size, failure and growth relationships. It is shown that the distribution of growth rates by size and age is highly skewed; that the median growth rates differ little by size class; and that there is some evidence of sample attrition bias when corporate deaths are allowed for. Age is negatively related to failure and growth.

PD October 1993. **TI** The Death Process: A Comparison of Large and Small Company Failures and Acquisitions. **AU** Cosh, Andy D.; Hughes, Alan. **AA** University of Cambridge. **SR** University of Cambridge Small Business Research Centre Working Papers: 33; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 28. **PR** $10.00 (L5.00); checks payable to University of Cambridge. **JE** L23, G33, G34. **KW** Mergers. Firm Failure. Small Firms.

AB This paper compares the pre-"death" characteristics of failing and acquired firms and compares them with nonfailing firms. The analysis covers a stratified sample of the whole UK corporate sector in the period 1977-82. Taken as a whole, the results confirm that failure is more frequent among smaller than larger companies, with acquisition deaths more prevalent in the middle size ranges; "natural" selection takes its smallest toll among the largest firms. However, it is among the larger firms that the underperformance of failing and acquired firms is most marked. In the small sizes there is a greater overlap between the living and the dead and the selection rule is much less obvious. In neither large nor small firms does it appear to be the case that acquisition is simply a "civilized alternative" to liquidation. Failing firms are generally worse performers than those which are acquired.

Costello, Donna M.

TI The Role of Oil Price Shocks in a Two-Sector, Two Country Model of the Business Cycle. **AU** Praschnik, Jack; Costello, Donna M.

PD March 1993. **TI** Intermediate Goods and the Transmission of International Business Cycles. **AU** Costello, Donna M.; Praschnik, Jack. **AA** Costello: University of Florida and University of Michigan. Praschnik: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9305; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 21. **PR** Canada $7.00; Elsewhere $9.00. **JE** E32, F41, E31. **KW** Business Cycles. Intermediate Goods. International Trade.

AB An empirically significant component of the international trade conducted by the U.S., Germany, and Japan is the trade in intermediate goods. In this paper, we consider the trade in intermediate goods as a source for transmitting business cycles internationally. We modify a dynamic, two-country, one-good, equilibrium model of the business cycle by introducing an intermediate good sector. Just as final goods, intermediate goods are also produced and traded in this economy. Impulse response functions and simulations of our economy suggest that trade in intermediate goods in an important source of the international transmission of business cycles.

Crepon, B.

PD July 1993. **TI** Parameter of Interest, Nuisance Parameter and Orthogonality Conditions: An Application to Autoregressive Error Component Models. **AU** Crepon, B.; Kramarz, F.; Trognon, A. **AA** Crepon: INSEE. Kramarz and Trognon: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9335; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 27. **PR** no charge. **JE** C13, C23, C33. **KW** Panel Data. Orthogonality Conditions.

AB In this article, we propose a link between the classical approach of econometrics where models are expressed in terms of conditional moments (with respect to exogenous variables) and the more recent approach that works in terms of orthogonality conditions. To do this, we need to distinguish between parameters of interest and nuisance parameters. When the latter are properly eliminated, orthogonality conditions can be reduced to active orthogonality conditions. These conditions are used to provide an asymptotically efficient estimation (using GMM or ALS) of the parameters of interest. This leads us to propose an extension of Chamberlain's (1982) approach that allows us to estimate any kind of panel data model. In order to check how this (asymptotically justified) approach works on finite samples, simulation experiments are conducted.

Cukierman, Alex

PD December 1993. **TI** The Political Economy of Immigration. **AU** Cukierman, Alex; Hercowitz, Zvi; Pines, David. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 17/93; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 44. **PR** no charge. **JE** H30, H40, H50, J60, J70. **KW** Migration. Politics. Voting Discrimination. Public Goods.

AB In many democratic countries immigrants obtain voting rights only after several years. This paper provides an explanation for this phenomenon in the framework of a dynamic migration model of two countries (North-South). In this framework individuals differ in their preferences regarding the supply of a public good, or more generally, regarding some public policy issue. The individual migration decision takes into account both the pecuniary opportunities and the supplies of the public good - which are determined by majority vote in the respective countries. Everyone has been an immigrant at some time in the past. In equilibrium, however, there is an intrinsic political conflict between residents of different "vintages", which implies that longer-time residents are better off postponing the granting of voting rights to more recent immigrants.

Cummins, Jason G.

PD March 1994. **TI** Accounting Standards, Information Flow, and Firm Investment Behavior. **AU** Cummins, Jason G.; Harris, Trevor S.; Hassett, Kevin A. **AA** Cummins: Columbia University and Board of Governors of the Federal

Reserve System. Harris: Columbia University. Hassett: Board of Governors of the Federal Reserve System. **SR** National Bureau of Economic Research Working Paper: 4685; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** $5.00. **JE** D21, M41. **KW** Financial Reporting. Tax Benefits. Investment.

AB We present a description of two different accounting regimes that govern reporting practice in most developed countries. "One-book" countries (e.g. Germany) use their tax books as the basis for financial reporting and "two-book" countries (e.g. the United States) keep the books largely separate. We derive a structural model and formalize a testable implication of our discussion: firms in one-book countries may be reluctant to claim some tax benefits if reductions in taxable income may be misinterpreted by financial market participants as signals of lower profitability. Econometric estimates suggest that accounting regime differences play an important role in describing domestic investment patterns both within and across countries.

Curcio, Riccardo

PD January 1994. **TI** The Effect of Managerial Ownership of Shares and Voting Concentration on Performance. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 185; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 53. **PR** no charge. **JE** D24, G32. **KW** Corporate Structure. voting Rights. U. K. Companies.

AB We investigate the empirical relationship between managerial ownership of shares and corporate performance, using a panel dataset of 389 UK manufacturing companies. The two measures of performance investigated are: market valuation, as expressed by Tobin's Q, and total factor productivity growth, measured by estimating a production function. The explicit consideration of companies with dual structures of voting rights enables the study of the effects of a disparity in the ownership of equity and votes by managers, and the effects of the concentration of voting rights which is made possible by departures from one share-one vote. Managerial ownership of shares seems to have a positive effect on productivity growth, even if our estimates are not highly significant. The disparity between equity and votes ownership has, instead, a strong and negative effect both for market valuation and productivity growth, when managers own more votes than equity claims. When equity and votes are held in the same proportion, the two effects on market valuation seem to balance out. Departures from one share-one vote allow any shareholder, not just managers, to choose different proportions of equity and votes, so we have used a measure of voting concentration to assess the impact of dual-classes security structures on the total market value of the firm. Positive values of voting concentration have a negative effect on market valuation and a possibly negative effect on productivity growth, providing further evidence that the incentive effects of equity and vote ownership are present and important.

Currie, Janet

PD February 1994. **TI** Saving Babies: The Efficacy and Cost of Recent Expansions of Medicaid Eligibility for Pregnant Women. **AU** Currie, Janet; Gruber, Jonathan. **AA** Currie and Gruber: National Bureau of Economic Research. Currie: University of California, Los Angeles. **SR** National Bureau of Economic Research Working Paper: 4644; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** H51, H53, I18. **KW** Health Care Reform. Medicaid Expansion.

AB A key question for health care reform in the U.S. is whether expanded health insurance eligibility will lead to improvements in health outcomes. We address this question in the context of dramatic expansions in the Medicaid eligibility for pregnant women that took place during the 1980's. We build a detailed simulation model of each state's Medicaid policy during the 1979-1990 period and use this model to estimate 1) the effect of changes in the rules on the eligibility of pregnant women for Medicaid, and 2) the effect of Medicaid eligibility changes on birth outcomes in aggregate Vital Statistics data. We have three main findings. First, the expansions did dramatically increase the Medicaid eligibility of pregnant women, but did so at quite differential rates across the states. Second, the expansions lowered the incidence of infant mortality and low birthweight. Third, previous targeted changes in Medicaid eligibility, had much larger effects on birth outcomes than broader expansions of eligibility to all women with somewhat higher income levels. We conclude that insurance expansions can improve health, but that translating eligibility to coverage may be the key link in making insurance policy effective.

Dabouineau, J. L.

PD February 1993. **TI** The Hiring Difficulties of French Enterprises: An Empirical Analysis on a Panel of Firms Using Simulation Techniques. **AU** Dabouineau, J. L.; Gacon, C.; Kramarz, F.; Lollivier, S. **AA** CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9306; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 13. **PR** no charge. **JE** J23, J64, C25, C23. **KW** Cost Adjustment Model. Unemployment.

AB A mismatch between an insufficiently skilled labor supply and growing labor demand for highly skilled personnel is often evoked as an explanation of unemployment. In this article, we analyze the hiring difficulties declared by French firms using a classical cost adjustment model. This model is tested on a panel dataset of enterprises. The dependent variable being qualitative, in order to take into account firm specific effects using an error component model, we use simulated maximum likelihood techniques. This makes it possible to show the strong heterogeneity at the firm level. We also examine the practical difficulties (number of simulations) to obtain asymptotic efficiency with such techniques.

Darby, Michael R.

TI Intellectual Capital and the Birth of U.S. Biotechnology Enterprises. **AU** Zucker, Lynne G.; Brewer, Marilynn B.; Darby, Michael R.

Davidson, Russell

PD June 1994. **TI** Graphical Methods for Investigating the Size and Power of Hypothesis Tests. **AU** Davidson, Russell; MacKinnon, James G. **AA** Davidson: Queen's University and GREQE-EHESS. MacKinnon: Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 903; Department of Economics, Queen's

University, Kingston, Ontario, CANADA K7L 3N6. **PG** 24. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** C10, C12. **KW** Monte Carlo. Hypothesis Testing. Information Matrix.

AB Simple techniques for the graphical display of simulation evidence concerning the size and power of hypothesis tests are developed and illustrated. Three types of figures-called P value plots, P value discrepancy plots, and size-power curves-are discussed. Some Monte Carlo experiments on the properties of alternative forms of the information matrix test are used to illustrate these figures. Tests based on the OPG regression are found to perform poorly in terms of both size and power.

Deacon, Robert T.

PD November 1993. **TI** Deforestation and the Rule of Law in a Cross-Section of Countries. **AA** University of California, Santa Barbara and Resources for the Future. **SR** University of California at Santa Barbara Department of Economics Working Paper: 11-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 19. **PR** no charge. **JE** Q20, Q23. **KW** Deforestation. Property Rights. Political Stability.

AB Cross section data from 120 countries are used to test for relationships between deforestation and three possible causes: population pressure, growth in income, and insecure property rights as reflected in legal and political attributes of countries. While models of the deforestation processes are suggested, the primary intent is to present descriptive empirical results. Insecure property rights are hypothesized to arise from two sources: government instability or inability to enforce ownership consistently, and an absence of popular representation and accountability in the form of government. The former source is captured by measures of general lawlessness such as guerrilla warfare, armed revolt, and rapid change sin laws or constitutions. The latter is proxied by variables indicating the type of government executive (military, elected, monarch), frequency of political purges, and the existence of an elected legislature. The results obtained indicate broad support for the property rights hypothesis and for the effects of population growth. It is clear, however, that additional factors remain to be determined.

Devereux, Michael B.

PD January 1994. **TI** Monopolistic Competition, Increasing Returns, and the Effects of Government Spending. **AU** Devereux, Michael B.; Head, Allen C.; Lapham, Beverly J. **AA** Devereux: University of British Columbia. Head and Lapham: Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 894; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 26. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** E60. **KW** Increasing Returns. Fiscal Policy. Monopolistic Competition.

AB We investigate the effects of fiscal spending policies in a dynamic general equilibrium economy with monopolistic competition and increasing returns. Government spending shocks generate an endogenous response in aggregate factor productivity leading to a number of results which contrast with the effects of government spending policies in constant returns economies. In particular, government spending multipliers are substantially higher than those in previous literature. Furthermore, government spending shocks can simultaneously raise output, consumption, and investment. Finally, both employment and the real wage may increase in response to a government spending shock.

Dewald, William G.

TI Replication and Scientific Standards in Economics a Decade Later: The Impact of the JMCB Project. **AU** Anderson, Richard G.; Dewald, William G.

Dhawan, Juhi

TI The Payments Systems Reforms and Monetary Policy in Emerging Market Economies in Central and Eastern Europe. **AU** Balino, Tomas J. T.; Dhawan, Juhi; Sundararajan, V.

Dhrymes, Phoebus J.

TI Productivity Dynamics: U.S. Manufacturing Plants, 1972-1986. **AU** Bartelsman, Eric J.; Dhrymes, Phoebus J.

Dickens, Richard

PD January 1994. **TI** The Effect of Minimum Wages on Employment: Theory and Evidence from Britain. **AU** Dickens, Richard; Machin, Stephen; Manning, Alan. **AA** Dickens and Manning: London School of Economics. Machin: University College London and London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 183; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 47. **PR** no charge. **JE** J42. **KW** Minimum Wage. Monopsony.

AB Recent work on the economic effects of minimum wages has stressed that the standard economic model, where increases in minimum wages depress employment, is not supported by the empirical findings in some labor markets. In this paper we present a theoretical framework which is general enough to allow minimum wages to have the conventional negative impact on employment, but which also allows for the possibility of a neutral or a positive effect. The model structure is based on labor market frictions which give employers some degree of monopsony power. The formulated model has a number of empirical implications which we go on to test using data on industry-based minimum wages set by the UK Wages Councils between 1975 and 1990. Some strong results emerge: minimum wages significantly compress the distribution of earnings and, contrary to conventional economic wisdom but in line with several recent studies, do not have a negative impact on employment. If anything, the relationship between minimum wages and employment is estimated to be positive.

Diebold, Francis X.

PD February 1994. **TI** Measuring Business Cycles: A Modern Perspective. **AU** Diebold, Francis X.; Rudebusch, Glenn D. **AA** Diebold: University of Pennsylvania. Rudebusch: Federal Reserve Board. **SR** National Bureau of Economic Research Working Paper: 4643; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** E32. **KW** Business Cycles.

AB In the first half of this century, special attention was given to two features of the business cycle: (1) the comovement of many individual economic series and (2) the different behavior of the economy during expansions and contractions. Both of these attributes were ignored in many subsequent business cycle models, which were often linear representations of a single macroeconomic aggregate. However, recent theoretical and empirical research has revived interest in each attribute separately. Notably, dynamic factor models have been used to obtain a single common factor from a set of macroeconomic variables, and nonlinear models have been used to describe the regime-switching nature of aggregate output. We survey these two strands of research and then provide some suggestive empirical analysis in an effort to unite the two literatures and to assess their usefulness in a statistical characterization of business-cycle dynamics.

Donald, Stephen G.

PD October 1992. **TI** Maximum Likelihood Estimation in Empirical Models of Auctions. **AU** Donald, Stephen G.; Paarsch, Harry J. **AA** Donald: University of Florida. Paarsch: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9211; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 30. **PR** Canada $5.00; Elsewhere $7.00. **JE** D44, C13, C72, D84. **KW** Rational Behavior. Common Prior.

AB In applications of game theory to auctions, researchers assume that players choose strategies based upon a commonly known distribution of the latent characteristics. Rational behavior, within an assumed class of distributions for the latent process, imposes testable restrictions upon the data generating process of the equilibrium strategies. Unfortunately, the support of the distribution of equilibrium strategies often depends upon all of the parameters of the distribution of the latent characteristics, making the standard application of maximum likelihood estimation procedures inappropriate. We present the maximum likelihood estimator as well as the conditions for its consistency and its asymptotic distribution.

PD December 1992. **TI** Identification in Empirical Models of Auctions. **AU** Donald, Stephen G.; Paarsch, Harry J. **AA** Donald: University of Florida. Paarsch: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9216; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 9. **PR** Canada $5.00; Elsewhere $7.00. **JE** D44, C51. **KW** Model Identification. Sealed Bid Auction. Private Value.

AB In this paper, we examine the question of identification in empirical models of auctions. In particular, we prove that the probability density function of the equilibrium winning bid at a sealed-bid auction within the independent private values paradigm is uniquely defined.

Donnenfeld, Shabtai

PD November 1993. **TI** Bargaining in International Trade Under Exchange Rate Uncertainty. **AU** Donnenfeld, Shabtai; Zilcha, Itzhak. **AA** Donnenfeld: New York University. Zilcha: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 13/93; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 25. **PR** no charge. **JE** F10, F23, D21. **KW** Renegotiation. International Trade. Exchange Rates.

AB This paper studies the implications of various contracting alternatives between exporting and importing firms on the value of production and international transactions. Since contracts are usually determined when exchange rate is uncertain, we show that under some conditions renegotiating these initial trade contracts can be beneficial to both parties. In such Nash-type bargaining solutions the initial contract is the disagreement point. It is shown that when renegotiation is possible, the firm produces more and the expected export is higher. Our results have some implications to well-known results concerning vertical integration as well.

Dumas, Bernard

PD February 1994. **TI** A Test of the International CAPM Using Business Cycles Indicators as Instrumental Variables. **AA** Duke University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4657; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** $5.00. **JE** G12, F30, E43, E44. **KW** Risk Premia. Stock Market.

AB Previous work by Dumas and Solnik (1993) has shown that a CAPM which incorporates foreign-exchange risk premia (a so-called "international CAPM") is better capable empirically of explaining the structure of worldwide rates of return than does the classic CAPM. In the specification of that test, moments of rates of return were allowed to vary over time in relation to a number of lagged "instrumental variables". Dumas and Solnik used instrumental variables which were endogenous or "internal" to the financial market (lagged world market portfolio rate of return, dividend yield, short-term rate of interest). In the present paper, I use as instruments economic variables which are "external" to the financial market, such as leading indicators of the business cycles. This is an attempt to explain the behavior of the international stock market on the basis of economically meaningful variables which capture "the state of the economy". I find that the leading indicators put together by Stock and Watson (NBER working paper no. 4014, 1992) as predictors of the U.S. business cycle also predict stock returns in the U.S., Germany, Japan and the United Kingdom. These instruments lead again to a rejection of the classic CAPM and no rejection of the international CAPM.

Dunne, Timothy

PD September 1993. **TI** The Long-Run Demand for Labor: Estimates From Census Establishment Data. **AU** Dunne, Timothy; Roberts, Mark J. **AA** Dunne: University of Oklahoma. Roberts: Pennsylvania State University. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: CES93-13; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 43. **PR** no charge. **JE** J30, J23, L60, C81. **KW** Labor Demand. Establishment Data. Measurement Error.

AB This paper estimates long-run demand functions for production workers, production worker hours, and nonproduction workers using micro data from U.S. establishment surveys. The paper focuses on estimation of the wage and output elasticities of labor demand using data on over 41,000 U.S. manufacturing plants in 1975 and more than 30,000 plants in 1981. Particular attention is focused on the problems of unobserved producer heterogeneity and measurement errors in output that can affect labor demand estimates based on establishment survey data. The empirical results reveal that OLS estimates of both the own-price elasticity and the output elasticity of labor demand are biased downward as a result of unobserved heterogeneity. Differencing the data as a solution to this problem greatly exaggerates measurement error in the output coefficients. The use of capital stocks as instrumental variables to correct for measurement error in output significantly alters output elasticities in the expected direction but has no systematic effect on own-price elasticities. All of these patterns are found in estimates that pool establishment data across industries and in industry-specific regressions for the vast majority of industries. Estimates of the output elasticity of labor demand indicate that there are slight increasing returns for production workers and production hours, with a pooled data estimate of .92. The output elasticities across industries is fairly small. Estimates of the own-price elasticity vary more substantially with the year, type of differencing used, and industry. The price elasticities vary widely across manufacturing industries: the interquartile range for the industry estimates in approximately .40.

TI A Comparison of Job Creation and Job Destruction in Canada and the United States. **AU** Baldwin, John; Dunne, Timothy; Haltiwanger, John.

Dupuis, J.

PD 1993. **TI** Estimation Bayesienne de Probabilites de Mouvement en Capture - Recapture. **AA** CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9341; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 19. **PR** no charge. **JE** C11, C51. **KW** Bayesian Analysis. Capture-Recapture Models. Markov Chains.

AB Capture-recapture models are used for estimating survival and movement probabilities of animal populations. For such populations, follow-up could not be considered as perfect; this constraint is integrated into the model through specific parameters, namely the capture probabilities. These models allow for extending the statistical analysis of usual categorical time series to situations when some data have not been collected. Maximum likelihood estimators are available in most settings. However a Bayesian analysis of open populations has not yet been undertaken, preventing the possibility of integrating prior information. In this paper, we exhibit the missing data structure of these models. Assuming that the movement is directed by a Markovian process, this perspective allow us to handle the analysis within the framework of hidden Markov chains. We provide Bayesian estimates and credible intervals for survival and movement probabilities.

Dutta, Prajit K.

TI The Folk Theorem for Repeated Games: A NEU Condition. **AU** Abreu, Dilip; Dutta, Prajit K.; Smith Lones.

Easterly, William

PD March 1994. **TI** Policy, Technology Adoption and Growth. **AU** Easterly, William; King, Robert G.; Levine, Ross; Rebelo, Sergio. **AA** Easterly and Levine: World Bank. King: University of Virginia. Rebelo: University of Rochester and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4681; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 15. **PR** $5.00. **JE** E22, E60, O41. **KW** Human Capital. Technology. Growth.

AB This paper describes a simple model of technology adoption which combines the two engines of growth emphasized in the recent growth literature: human capital accumulation and technological progress. Our model economy does not create new technologies, it simply adopts those that have been created elsewhere. The accumulation of human capital is closely tied to this adoption process: accumulating human capital simply means learning how to incorporate a new intermediate good into the production process. Since the adoption costs are proportional to the labor force, the model does not display the counterfactual scale effects that are standard in models with endogenous technical progress. We show that our model is compatible with various standard results on the effects of economic policy on the rate of growth.

Eaton, Jonathan

PD January 1994. **TI** Cities and Growth: Theory and Evidence From France and Japan. **AU** Eaton, Jonathan; Eckstein, Zvi. **AA** Eaton: Boston University and National Bureau of Economic Research. Eckstein: Tel Aviv University. **SR** National Bureau of Economic Research Working Paper: 4612; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 35. **PR** $5.00. **JE** R11, O18, J11. **KW** Urbanization. Growth of Cities, France. Growth of Cities, Japan.

AB The relative distribution of the populations of the top 40 urban areas of France and Japan remained very constant during these countries' periods of industrialization and urbanization. Moreover, projection of their future distributions based on past growth indicates that their size-distributions in steady state will not differ essentially from what they have been historically. Urbanization consequently appears to have taken the form of the parallel growth of the cities, rather than of convergence to an optimal city size or of the divergent growth of the largest cities. We develop a model of urbanization and growth based on the accumulation of human capital consistent with these observations. Our model predicts that larger cities will have higher levels of human capital, higher rents, and higher wages per worker, even though workers are homogeneous and free to migrate between cities. Cities grow at a common growth rate, with relative city size depending upon the environment that they provide for learining.

PD March 1994. **TI** Cross-Border Banking. **AA** Eaton: Boston University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4686; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** $5.00. **JE** E42, E50, F33, G21. **KW** Central Bank. Seigniorage. Monetary Policy. Inflation. Reserves.

AB The banking systems of some countries export intermediation services to the rest of the world, while many other countries are net exporters of deposits to banks abroad and net importers of loans from banks abroad. Banking center countries typically have lower inflation, deeper financial systems, earn less government revenue from seigniorage, and have lower reserve money relative to bank assets than nonbanking-center countries. This paper develops a stylized model of regulated bank intermediation to examine the role of national monetary policy in determining the international competitiveness of a national banking system. Monetary policy takes the form of controlling the supply of reserve money and imposing restrictions on banks that generate a demand for reserve money (reserve requirements). The international competitiveness of a banking system is enhanced by having a monetary authority who places greater weight on the interests of existing creditors relative to debtors in its constituency, and who has less need to raise revenue from seigniorage. With complete integration of deposit and loan markets the location of intermediation can be indeterminate. Countries that receive more deposits can generate a given amount of seigniorage with less inflation. Monetary authorities in countries that experience deposit outflows may be tempted to impose capital controls in order to maintain their seigniorage base. One implication of the analysis is that integration of monetary policies can facilitate financial integration by reducing the incentive to relocate deposits to avoid the inflation tax.

Eckstein, Zvi

TI Cities and Growth: Theory and Evidence From France and Japan. **AU** Eaton, Jonathan; Eckstein, Zvi.

Economides, Nicholas

PD September 1993. **TI** The Political Economy of Branching Restrictions and Deposit Insurance: A Model of Monopolistic Competition Among Small and Large Banks. **AU** Economides, Nicholas; Hubbard, R. Glenn; Palia, Darius. **AA** Economides: New York University. Hubbard: Columbia University and National Bureau of Economic Research. Palia: Columbia University. **SR** New York University Salomon Brothers Working Paper: S-94-1; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 23. **PR** not available. **JE** G21, G28, N20. **KW** Federal Deposit Insurance. Banking Regulations.

AB This paper suggests that the introduction of federal deposit insurance in the United States likely was motivated by political considerations. It was instituted for the benefit of the small, poorly-capitalized state banks primarily located in rural states who were not able to compete with the large, will-capitalized national banks (the pro-branching constitiuency of Congress). We analyze this "political hypothesis" in two steps. We first use a model of monopolistic competition between small and large banks to examine gains to the former group from the introduction of branching restricions and government-sponsored deposit insurance. We then provide evidence for the political hypotheses by examining the voting record of Congress and the eight state-level deposit insurance schemes that had failed in the 1920's.

PD October 1993. **TI** How to Enhance Market Liquidity. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-94-2; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 9. **PR** not available. **JE** G10, G14. **KW** Liquidity. Financial Markets. Call Markets.

AB This paper focuses on liquidity considerations in financial markets. I show the liquidity advantages of call over continuous markets and analyze a structure of time-differentiated fees in a call market that guarantees high liquidity. I also discuss the importance of critical mass and the creation and acquisition of price information on market equilibrium and, ultimately, on the market structure of financial exchanges.

Edison, Hali J.

PD May 1994. **TI** European Monetary Arrangements: Implications for the Dollar, Exchange Rate Variability and Credibility. **AU** Edison, Hali J.; Kole, Linda S. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 468; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 48. **PR** no charge. **JE** F31, F33, E40, G15. **KW** Exchange Rate. Realignment Probabilities. European Monetary Union. Exchange Rate Variability.

AB This paper uses the recent history of the ERM to gain insights into what might happen to exchange rates on the road to EMU. To do this, the paper examines the variability of exchange rates, the transmission of monetary policy between countries, the role of the dollar in ERM exchange rate crises, and ERM members' credibility as measured by the realignment probabilities prior to the September 1992 crisis. We find that behavior of exchange rates has changed over time and differs between ERM and non-ERM currencies. We identify two factors that might have contributed to the September 1992 crisis: high German interest rates and weakness of the U.S. dollar.

Editorial Division

PD January 1994. **TI** Working Paper Summaries. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/14; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 40. **PR** not available. **JE** A10. **KW** Working Paper Summary.

AB This compilation of summaries of Working Papers released during July-December 1993 is being issued as a part of the Working Paper series. It is designed to provide the reader with an overview of the research work performed by the staff during the period.

Edwards, Sebastian

PD February 1994. **TI** Fixed Exchange Rates, Inflation and Macroeconomic Discipline. **AU** Edwards, Sebastian; Losada, Fernando J. **AA** Edwards: World Bank and National Bureau of Economic Research. Losada: World Bank. **SR** National Bureau of Economic Research Working Paper: 4661; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** E58, E31, F31. **KW** Purchasing Power Parity. Terms of Trade. Balance of Payments.

AB We use data from Guatemala and Honduras to investigate some implications of the Purchasing Power Parity theory over the long-run. In particular, we address two questions. First, to what extent did the fixed exchange rate regime impose macroeconomic discipline on these countries. Second, what was the impact of terms of trade shocks and growth differentials on inflation rate differentials between those countries and the United States. We found that the fixed parities regime worked properly until the mid-1970's, providing some constraint on central bank behavior. However, the evidence suggests that the fixed exchange rate system was not sufficient to avoid inflation outbursts and balance of payments crises. Specifically, it was unable to accommodate large negative terms of trade shocks in the late 1970's and early 1980's.

PD April 1994. **TI** Macroeconomic Stabilization in Latin America: Recent Experience and Some Sequencing Issues. **AA** World Bank and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4697; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** $5.00. **JE** E20, E61, F14, F31. **KW** Foreign

Exchange. Trade.
AB This paper reviews the experience of Latin American countries with structural reforms, and discusses the relationship between macroeconomic stabilization and trade liberalization programs undertaken in the region since the early 1980's. The problem of sequencing of stabilization and structural reforms is analyzed with detail. First, the problem is analyzed from a theoretical perspective; second, the stabilization programs implemented in Latin America are reviewed on a case by case basis. Particular emphasis is given to the analysis of the fiscal consequences of the chosen sequencing, as well as its impact on the evolution of domestic savings and investment, and on foreign investment. The final part of the paper concentrates on the behavior of real exchange rates during the stabilization programs and its relationship with trade reforms.

Ehrenberg, Ronald G.

PD March 1994. **TI** Do Teachers' Race, Gender, and Ethnicity Matter?: Evidence From NELS88. **AU** Ehrenberg, Ronald G.; Goldhaber, Daniel D.; Brewer, Dominic J. **AA** Ehrenberg: Cornell University and National Bureau of Economic Research. Goldhaber and Brewer: Cornell University. **SR** National Bureau of Economic Research Working Paper: 4669; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 14. **PR** $5.00. **JE** I21, J15, Z10. **KW** Subjective Evaluations. Objective Evaluations. Student.
AB Our study uses a unique national longitudinal survey, the National Educational Longitudinal Study of 1988 (NELS), which permits researchers to match individual students and teachers, to analyze issues relating to how a teacher's race, gender, and ethnicity, per se, influence students from both the same and different race, gender, and ethnic groups. In contrast to much of the previous literature, we focus both on how teachers subjectively relate to and evaluate their students and on objectively how much their students learn. On balance, we find that teachers' race, gender, and ethnicity, per se, are much more likely to influence teachers' subjective evaluations of their students than they are to influence how much the students objectively learn. For example, while white female teachers do not appear to be associated with larger increases in test scores for white female students in mathematics and science than white male teachers "produce", white female teachers do have higher subjective evaluations than their white male counterparts of their white female students. We relate our findings to the more general literature on gender, race, and ethnic bias in subjective performance evaluations in the world of work and trace their implications for educational and labor markets.

Eichenbaum, Martin

TI Factor Hoarding and the Propagation of Business Cycle Shocks. **AU** Burnside, Craig; Eichenbaum, Martin.

Eichengreen, Barry

PD January 1994. **TI** Deja Vu All Over Again: Lessons From the Gold Standard for European Monetary Unification. **AA** University of California, Berkeley. **SR** University of California at Berkeley Center for International and Development Economics Research Working Paper: C94-032; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. **PG** 31. **PR** no charge. **JE** N00. **KW** European Monetary Unification. Gold Standard.
AB This paper reconsiders the gold standard through EMU-tinted lenses. It asks whether the conditions that rendered viable the fixed exchange rates of the gold standard are present in Europe today. It starts by considering six aspects of gold standard experience in light of EMU: the capital mobility, fiscal rules, and central bank independence. It then turns to the contrast with the much less satisfactory interwar gold standard and possible implications for EMU.

TI Can Foreign Aid Accelerate Stabilization? **AU** Casella, Alessandra; Eichengreen, Barry.

Elgar, Jane

PD October 1993. **TI** Union Negotiators, Industrial Action and the Law: Report of a Survey of Negotiators in Twenty Five Unions 1991-1992. **AU** Elgar, Jane; Simpson, Bob. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 171; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 18. **PR** no charge. **JE** K31, J51, J52. **KW** Trade Unions. Dispute Resolution. Strikes. Employment Law.
AB It has been widely assumed that the labor legislation of the 1980's has been a major catalyst for change in British industrial relations. The nature and extent of the law's impact have usually been assumed and rarely been clearly articulated. This paper reports the results of part of a research project designed to investigate these issues and the processes by which any legal influences took effect. A survey of negotiators in twenty five trade unions was carried out by questionnaire. The responses showed that the law had become a more important factor in the conduct of disputes. Its influence on union negotiators had not, however, been entirely negative. The law on strike ballots stood out as the most important of the changes in the law made by the 1980's legislation and the use of ballots emerged as a feature of union strategy in negotiations. More often than not this produced positive results from a union perspective. Nevertheless, overall a majority of negotiators saw the law as an important factor favoring employers in the bargaining process.

Elleman, Bruce A.

PD January 1994. **TI** The Open Door Policy in China Reconsidered. **AA** Stanford University. **SR** Stanford Hoover Institution International Studies Working Paper: I-94-1; The Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 34. **PR** no charge. **JE** F13, N45, P33, P26. **KW** Soviet Union. International Trade. Foreign Policy.
AB The Soviet government's apparent ambivalence towards the Open Door Policy after the October Revolution and during the early 1920's is largely explained by its dual policy in Siberia and China. Whenever the Bolsheviks were threatened by Japanese expansionism, they turned to Washington for protection under the Open Door Policy. But, whenever the Open Door Policy interfered with the Bolsheviks' attempts to expand their influence into China's traditional borderlands, then Moscow was quick to criticize the Open Door Policy as a capitalist tool supporting the economic exploitation of China. Although this dual policy might appear contradictory at first glance, both aspects in fact promoted the same goal: the preservation and expansion of the Soviet sphere of influence in the Far East.

Engel, Charles

PD December 1993. **TI** Tests of CAPM on an International Portfolio of Bonds and Stocks. **AA** University of Washington and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4598; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $5.00. **JE** G12, G15, C12, C13. **KW** Capital Asset Pricing Model. Asset Pricing. International Portfolio.

AB This paper estimates and tests an international version of the Capital Asset Pricing Model. Investors from the U.S., Germany and Japan choose a portfolio that includes bonds and equities from each of these countries to maximize a function of the mean and variance of returns. Investors in each country evaluate returns in terms of their home currency; The CAPM does have some power in explaining ex ante returns. It predicts fairly large risk premia on the equities, but small ones on bonds. The model is rejected, however, when tested against a more general alternative that allows for more investor heterogeneity than the CAPM.

PD February 1994. **TI** Relative Returns on Equities in Pacific Basin Countries. **AU** Engel, Charles; Rogers, John H. **AA** Engel: University of Washington and National Bureau of Economic Research. Rogers: Pennsylvania State University. **SR** National Bureau of Economic Research Working Paper: 4655; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** E43, E44, G15. **KW** Return Differentials. Capital Mobility. Risk.

AB We examine the factors that determine the differences in ex ante retuns on equities in eleven Pacific Basin countries. Our concern is whether real return differentials are primarily caused by nominal return differentials or expected changes in real exchange rates. We find that nominal return differentials account for most of the difference, which suggests that either there is not free mobility of capital between the countries of our study or that there are significant differences in the riskiness of returns across countries. We do not find a significant relationship between the size of the return differentials and the flexibility of the nominal exchange rate.

Entorf, H.

PD February 1993. **TI** Do Aggregate Measures of Mismatch Measure Mismatch? A Time Series Analysis of Existing Concepts. **AA** INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9318; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 18. **PR** no charge. **JE** J64, C43, C22, J62. **KW** Mismatch. Occupational Mobility.

AB The paper discusses the performance of two popular measures of mismatch (Jackman and Roper, 1987, and Jackman, Layard and Savouri, 1991). Contrary to time series evidence using this concept (which often does indicate decreasing mismatch after 1975), presented micro evidence reveals declining mobility. Some analytical time series analysis shows that results achieved from investigating time series might lead to wrong conclusions since applied measures of mismatch fail when these time series are shifting upward: without changing the relative structure between individual groups (regions, skills, occupation), one can easily show that increasing the general level of unemployment (deterministically or in terms of a random walk with drift) leads to a decrease of measured mismatch.

TI On Nonparametric Estimation of the Schumpeterian Link Between Innovation and Firm Size: Evidence from Belgium, France, and Germany. **AU** Bertschek, I.; Entorf, H.

PD January 1994. **TI** The Impact of New Technologies on Wages: Lessons from Matching Panels on Employees and on Their Firms. **AU** Entorf, H.; Kramarz, F. **AA** Entorf: CREST and University of Mannheim. Kramarz: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9407; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 25. **PR** no charge. **JE** J31, J24, C23. **KW** New Technology. Wage Differentials.

AB We study the impact of New Technologies (NT) on wages using a unique panel that matches data on individuals and on their firms. In his important article on the same topic, Krueger (1993) did not give a definitive answer to the following question: If workers who use NT are better paid, is it because they are abler or because NT increases their productivity? We try to provide a precise answer to this question. Comparing cross-section estimates and individual fixed-effect estimates, we show that computer-based new technologies are used by abler workers. These workers become more productive when they get more experienced with these NT. In terms of wage differentials, the introduction of computer-based NT contributes to the increase but less than supposed before. However, the higher is the skill, the less the use of modern NT is compensated. Managers, technicians, engineers are not compensated for their use of modern NT; it is part of the definition of their job.

Evans, Lewis

PD November 1992. **TI** What Can Univariate Models Tell Us About Economic Growth: 1870-1985? **AU** Evans, Lewis; Quigley, Neil. **AA** Evans: Victoria University of Wellington. Quigley: University of Western Ontario and Victoria University of Wellington. **SR** University of Western Ontario Department of Economics Research Report: 9301; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 19. **PR** Canada $7.00; Elsewhere $9.00. **JE** C22, N11, N12, O47. **KW** Unit Roots. Permanent Shocks. Long-Run Growth.

AB Inwood and Stengos (1991) applied the recent developments in unit root econometrics by Perron (1989) to Canadian real GNP and investment data, and argued that the wheat boom, WWI and WWII resulted in permanent exogenous shocks to the Canadian economy, but the great depression and the oil price shocks did not. We show that this methodology can be used to support a large number of plausible alternative hypotheses about exogenous shocks to the Canadian economy, and discuss a number of the important theoretical shortcomings associated with it. In addition, application of an alternative approach to the analysis of univariate time series (Harvey and Jaeger 1991) suggests that the Perron model may misspecify the trend in the Canadian data, and that the conclusions drawn from it may be spurious. We therefore argue that univariate econometric models have very limited power to distinguish between the alternative hypotheses about long-run growth that are of interest to economic historians.

Evans, Merran

TI An Empirical Investigation of Shock Persistence in Economic Time Series. **AU** Mayadunne, Geetha; Evans, Merran; Inder, Brett.

Fan, Qimiao

PD February 1994. **TI** Government Financial Transfers and Enterprise Adjustments in Russia, with Comparisons to Central and Eastern Europe. **AU** Fan, Qimiao; Schaffer, Mark S. **AA** Fan: World Bank. Schaffer: London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 191; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 66. **PR** no charge. **JE** P52. **KW** Russia. Enterprise. Eastern Europe.

AB This paper analyzes the adjustments of state-owned enterprises in Russia to the economic reforms started in early 1992. We draw on evidence from enterprise visits, larger enterprise surveys, aggregate data on the enterprise sector, and making direct comparison to comparable experiences in Poland, Hungary, and the (former) CSFR, the leaders in the transition from socialism in Central and Eastern Europe (CEE). We find that enterprise adjustment in Russia has broadly followed the pattern observed in the leading CEE economies in transition. Demand and output have dropped, and many enterprises have changed their product mix in response, without substantial new investment; firms are looking for new customers, though progress in terms of exports is still limited; they are containing wage costs and shedding labor, albeit more slowly than firms in the CEE countries; the level of interenterprise credit (payables and receivables) had increased but has stabilized at levels comparable to those observed both in other transition countries as well as in West European economies; enterprises have been moving to prepayment methods and avoiding extending trade credit if possible. However, there are also signs that adjustment in the enterprise sector is uneven, that the overall pace of adjustment is slow by CEE standards, and that governmental transfers are behind this. The financial transfers to enterprises take two forms: subsidies, and directed credits. The case of directed state credits is analyzed in some detail, and evidence is presented suggesting that they are allocated according to "need", meaning that the recipient enterprise is in financial difficulties and/or it is politically important.

Farrow, Ray

TI Testing Dividend Signalling Models. **AU** Bernhardt, Dan; Robertson, J. Fiona; Farrow, Ray.

Feldman, Robert A.

PD March 1994. **TI** Emerging Equity Markets: Growth, Benefits, and Policy Concerns. **AU** Feldman, Robert A.; Kumar, Manmohan S. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/7; International Monetary Fund, Washington, DC 20431. **PG** 20. **PR** not available. **JE** E50, G10, G30. **KW** Stock Markets. Stock Prices. Developing Countries.

AB Since the mid-1980's, there has been a very substantial increase in stock market activity in many developing countries. This paper first examines the main characteristics of the emerging stock markets, and illustrates the evolution of equity prices in these markets over the last decade. It then discusses the reasons for the markets' growth and assesses the extent to which domestic policies, as well as external factors, have played a role. This is followed by a discussion of the likely benefits of these markets; the effects which any abrupt correction in stock prices could have for the economy; and the ways in which these markets can be made more efficient.

Feldstein, Martin

PD March 1994. **TI** The Effects of Outbound Foreign Direct Investment on the Domestic Capital Stock. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4668; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** $5.00. **JE** E22, F23, F30, G15. **KW** Foreign Debt. OECD. Capital Markets.

AB This paper analyzes the effect of outbound foreign direct investment (FDI) on the domestic capital stock. The first part of the paper shows that only about 20 percent of the value of assets owned by U.S. affiliates abroad is financed by cross-border flows of capital from the United States. An additional 18 percent represents retained earnings attributable to U.S. investors. The rest is financed locally by foreign debt and equity. The second part of the paper analyzes data for the major industrial countries of the OECD and finds that each dollar of cross-border flow of foreign direct investment reduces domestic investment by approximately one dollar. This dollar for dollar displacement of domestic investment by outbound FDI is consistent with the Feldstein-Horioka picture of segmented capital markets. It suggests that while portfolio funds are largely segmented into national capital markets, direct investment can achieve cross-border capital flows. A dollar outflow of direct investment reduces domestic investment by a dollar and this is not offset by a change in international portfolio investment. This ability of foreign direct investment to circumvent the segmented national capital markets also appears in the expanded use of foreign debt and equity capital to finance the capital accumulation of foreign affiliates of U.S. firms. Taken together, these estimates suggest that each dollar of foreign assets acquired by U.S. foreign affiliates reduces the U.S. domestic capital stock by between 20 cents and 38 cents. Equivalently, this implies that each dollar of displaced domestic capital in the United States adds between $2.60 and $5.00 to the capital stock of U.S. foreign affiliates.

PD March 1994. **TI** Taxes, Leverage and the National Return on Outbound Foreign Direct Investment. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4689; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** E44, F34. **KW** National Income. Foreign Debt. International Capital Market.

AB The effect of outbound foreign direct investment (FDI) on the national income of the parent firm's country depends on the relative importance of two countervailing factors: the loss of tax revenue to the foreign government and the increased use of foreign debt. The present paper develops an explicit analysis of these two factors in the context of the segmented international capital market in which most national saving remains in the country in which the saving is done. The analysis is applied with realistic paramenter values for U.S. outbound foreign direct investment. The calculations imply that an increase in outbound FDI raises the present value of U.S. national income by a rather substantial amount. Traditional analyses that conclude that the foreign tax credit causes excess outbound FDI fail to take into account the fact that firms that invest abroad increase their use of foreign debt as they increase the extent of their FDI.

Fershtman, Chaim

PD February 1994. **TI** A Simple Model of Equilibrium in Search Procedures. **AU** Fershtman, Chaim; Rubinstein, Ariel. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 5/94; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 14. **PR** no charge. **JE** D83. **KW** Search Procedures. Bounded Rationality.

AB The paper presents a simple game theoretic model in which players decide on the search procedures for a prize which is located in one of a labeled set of boxes. The prize is awarded to the player who finds it first. A player can decide on the number of (costly) search units he employs and the order in which he conducts the search. It is shown that in equilibrium, the players employ an equal number of search units and conduct a fully random search. The paper demonstrates that the search procedure is intrinsically inefficient in two senses: the players employ a non-optimal number of search units and they may open the same empty box twice.

Ferson, Wayne E.

PD January 1994. **TI** Sources of Risk and Expected Returns in Global Equity Markets. **AU** Ferson, Wayne E.; Harvey, Campbell R. **AA** Ferson: University of Washington. Harvey: Duke University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4622; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** G12, G15. **KW** Asset Pricing Models. Global Equity Markets.

AB This paper empirically examines multifactor asset pricing models for the returns and expected returns on eighteen national equity markets. The factors are chosen to measure global economic risks. Although previous studies do not reject the unconditional mean-variance efficiency of a world market portfolio, our evidence indicates that the tests are low in power, and the world market betas do not provide a good explanation of cross-sectional differences in average returns. Multiple beta models provide an improved explanation of the equity returns.

Fielke, Norman S.

PD December 1993. **TI** International Capital Transactions: Should They Be Restricted? **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/93/20; International Monetary Fund, Washington, DC 20431. **PG** 16. **PR** not available. **JE** F32. **KW** International Capital Transactions.

AB Some prominent economists and officials contend that government restrictions should be used to limit international capital movements that are considered destabilizing. This paper briefly summarizes the recent usage of such restrictions, discusses their international acceptance and their theoretical justification, reviews recent empirical studies of their efficacy, and examines their efficacy in Ireland, Spain, and Portugal during the latter part of 1992. The conclusion is that such restrictions typically have no more than fleeting and minor success in attaining their objectives.

Filardo, Andrew J.

PD October 1993. **TI** Business Cycle Durations. **AU** Filardo, Andrew J.; Gordon, Stephen F. **AA** Filardo: Federal Reserve Bank of Kansas City. Gordon: Universite Laval. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-11; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 28. **PR** no charge. **JE** E32. **KW** Business Cycles.

AB While the development of Markov switching extensions to time series modelling has provided a useful way of characterizing business cycle dynamics, these models are not without their weaknesses. One problem is posed by the fact that since the state space for the unobserved state variables grows with the sample size, sampling distributions for maximum-likelihood estimates are difficult to establish. A second problem is that since the transition probabilities are constant, the expected duration of a phase is constant. This paper extends the model so that the information contained in leading indicator data can be used to forecast transition probabilities. These transition probabilities can then be used to calculate expected durations. The model is applied to U.S. data to evaluate its ability to explain observed business cycle durations. The technical problems encountered with classical techniques are avoided by using Bayesian methods. Gibbs sampling techniques are used to calculate expected posterior durations.

PD November 1993. **TI** Business Cycle Phases and Their Transitional Dynamics. **AA** Federal Reserve Bank of Kansas City. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-14; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 24. **PR** no charge. **JE** E32. **KW** Business Cycles.

AB This paper examines differences in expansionary and contractionary phases of the business cycle. By extending the nonlinear Markov switching estimation method of Hamilton (1989) to incorporate time-varying probabilities of transitions between the phases, the marginal benefits of the Time-Varying Transition Probability Markov Switching Model are highlighted. Using this technique, I document the high correlation between the evolution of the phases inferred from the model and traditional reference cycles for monthly output data. Many of the economic variables that determine the time-varying probabilities help to predict turning points. The predictive power of standard leading indicators is evaluated and compared.

PD December 1993. **TI** The Evolution of U.S. Business Cycle Phases. **AA** Federal Reserve Bank of Kansas City. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-17; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 100. **PR** no charge. **JE** E32. **KW** Business Cycles.

AB Business cycle theory and practice have evolved through periods of prosperity and periods of consolidation. Three key ingredients - tools of theory, data, and computing power - have largely defined the parameters of its growth. In this paper, I add to the growing body of literature which bolsters the view that the unobserved common fluctuation that many macroeconomic series exhibit are dominated by periods of expansion and contraction. This line of literature suggests that if the persistence of the expansions and contractions are accounted for statistically, more powerful estimation and better forecasting performance can be achieved. Moreover, such a view broadens our understanding of economic fluctuations, challenges existing theories of economic activity, and changes the focus of debate for public policy. In this paper, I examine differences in expansionary and contractionary phases of the U.S. business cycle. By extending the nonlinear Markov switching method of Hamilton (1989) to incorporate time-varying transition probabilities between the phases, I document the high correlation between the evolution of the phases inferred from the model and traditional reference cycles for monthly and quarterly output data. Many of the economic variables that determine the time-varying transition probabilities help to predict turning points; the predictive power of the time-varying transition probability Markov switching model is compared to various alternative models.

Fishelson, Gideon

PD January 1994. **TI** The Response Function of the Central Bank of Israel with Respect to Foreign Exchange 1991-1992. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 3/94; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 32. **PR** no charge. **JE** E58, F31. **KW** Response Function. Exchange Rate Regime. Horizontal Band. Adjustable Diagonal Band.

AB Since the early days of the country, exchange rate policy was one of the most important policies executed by the Bank of Israel. In this study we are concerned with the recent phases of this policy. We analyze the Policies prevailing in 1991 and 1992. 1) March 11, 1991 to December 16, 1991, fixed central parity with a mid band of 2.55 NIS/Basket unit, and 2) December 17, 1991 to November 1992, adjustable diagonal band. The study is an empirical one trying to trace the parameters of behavior of the Bank of Israel with respect to changes of the exchange rate in response to excess supply demand for foreign exchange by the Israeli public. We found that the Bank's response behavior over the two periods was different. Furthermore, within each period the response was non-symmetric with respect to excess supply and excess demand. Hence, one might say that from March 1991 to November 1992 the Bank of Israel employed 4 response functions. We also found that the introduction of the adjustable diagonal band has softened the Bank's responses in the sense that the response parameters were smaller in absolute terms. Hence, the brute intervention was less felt and the behavior of the exchange rate was smoother. This is another positive point for the latter policy.

Fisher, Anthony C.

TI Optimal Capital Accumulation and Stock Pollution: The Greenhouse Effect. **AU** Rubio, Santiago J.; Fisher, Anthony C.

PD May 1994. **TI** Alternatives for Managing Drought: A Comparative Cost Analysis. **AU** Fisher, Anthony C.; Fullerton, David; Hatch, Nile; Reinelt, Peter. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 643R; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 28. **PR** $11.25. **JE** Q25, D61. **KW** Water Supply. Water Marketing. Conjunctive Use.

AB The question addressed by this study is how a large urban water district can best respond to a drought. Using a computer model of a representative district, we find that a combination of conjunctive use and water marketing is well over an order of magnitude cheaper than the traditional alternative of construction of new storage capacity. The indicated cost saving can be explained by the intermittent nature of the transfer, corresponding to the intermittent demand. Comparing costs to benefits, the consumer-surplus loss otherwise entailed by raising prices to cut back on consumption in the event of a drought, we find that construction of new storage does not pass a benefit/cost test, but introduction of conjunctive use/water marketing does.

Fleurbaey, M.

PD January 1994. **TI** Cooperative Production: A Comparison of Individual Rationality Constraints. **AU** Fleurbaey, M.; Maniquet, F. **AA** Fleurbaey: INSEE. Maniquet: FNRS. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9414; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 10. **PR** no charge. **JE** D63. **KW** Fair Allocations. Lower Bound. Egalitarian Equivalent.

AB In the model of cooperative production, we introduce two new axioms of lower bounds, the Manna lower bound and the Constant Returns lower bound. Although these lower bounds are by no means maximal in the sense of Moulin (1991, 1992), with mild additional requirements they characterize the egalitarian-equivalent solution and the constant-returns-equivalent solution on relevant domains.

TI Redistribution and Compensation. **AU** Bossert, W.; Fleurbaey, M.

Fogel, Robert W.

PD February 1994. **TI** Economic Growth, Population Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy. **AA** University of Chicago and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4638; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** $5.00. **JE** I12, J11, N30, O40, O47. **KW** Economic Growth. Physiology. Technology.

AB This paper sketches a theory of the secular decline in morbidity and mortality that takes account of changes in human physiology since 1700. The synergism between technological and physiological improvements has produced a form of human evolution, much more rapid than natural selection, which is still ongoing in both OECD and developing countries. Thermodynamic and physiological aspects of economic growth are defined and their impact on growth rates is assessed. Implications of this theory for population forecasting, measurement of national income, demand for leisure, pension policies, and the demand for health care are considered.

Fougere, D.

TI Evaluating the Impact of French Employment Policies on Individual Labour Market Histories. **AU** Bonnal, L.; Fougere, D.; Serandon, A.

Fourdrinier, D.

PD January 1994. **TI** Intrinsic Losses for Empirical Bayes Estimation: A Note on Normal and Poisson Cases. **AU** Fourdrinier, D.; Robert, C. P. **AA** Fourdrinier:

Universite de Rouen. Robert: Universite de Rouen and CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9405; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 11. **PR** no charge. **JE** C10, C11, C13. **KW** Entropy Loss. Bayes Hyperprior. Bayes Estimator.

AB In empirical Bayes analysis, the estimation of the hyperparameter is entirely left to the choice of the experimenter and the corresponding empirical Bayes estimator thus fails to achieve a global coherence. In this paper, we propose a more directed approach based upon the use of a formal Bayes hyperprior and intrinsic losses for the estimation of hyperparameter. This approach is illustrated in the normal case, where it is shown to lead to an estimator proposed by Alam (1973), and in the Poisson case, when we derive new domination results under the entropy loss.

Frankel, Jeffrey A.

PD April 1994. **TI** The Internationalization of Equity Markets: Introduction. **AA** University of California, Berkeley. **SR** University of California at Berkeley Center for International and Development Economics Research Working Paper: C94-033; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. **PG** 27. **PR** no charge. **JE** G15. **KW** International Diversification. Emerging Markets. CAPM.

AB This introduction to a forthcoming NBER volume on the "Internationalization of Equity Markets" argues that the existing finance literature has in some respects not kept pace with world trends. Most empirical studies fail to take due account of the diversity of assets offered by countries around the world, the diversity of locales in which investors live, and the diversity of institutional peculiarities that characterize the markets in which assets and investors are brought together. Four of the papers in the volume are econometric studies of asset pricing and home-country bias in internationally integrated equity markets. The other four examine such issues as emerging markets, country funds, trading volume, location, taxes controls, and other imperfections in international markets.

PD April 1994. **TI** Trading Blocs: The Natural, the Unnatural, and the Super-Natural. **AU** Frankel, Jeffrey A.; Stein, Ernesto; Wei, Shang-Jin. **AA** University of California, Berkeley. **SR** University of California at Berkeley Center for International and Development Economics Research Working Paper: C94-034; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. **PG** 50. **PR** no charge. **JE** F15. **KW** Free Trade Area. Trading Blocs. Gravity Model. Regional Trade Preferences.

AB Is the world breaking up into three trading blocs, one in the Americas, one in Europe and one in Pacific Asia? If so, is this deviation from the principles of MFN (non-discriminatory trade policies) good or bad? This paper attempts to answer both questions. Using the gravity model to examine bilateral trade patterns throughout the world, we find evidence of trading blocs in the European Community, the Pacific, and the Western Hemisphere, as in earlier work. Intra-regional trade is greater than could be explained by natural determinants: the proximity of a pair of countries, their sizes and GNP/capita ratios, and whether they share a common border or a common language. We then turn from econometrics to an analysis of economic welfare.

PD April 1994. **TI** A Two-Country Analysis of International Targeting of Nominal GNP. **AU** Frankel, Jeffrey A.; Funke, Norbert. **AA** Frankel: University of California, Berkeley. Funke: Kiel Institute of World Economics, GERMANY. **SR** University of California at Berkeley Center for International and Development Economics Research Working Paper: C94-035; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. **PG** 19. **PR** no charge. **JE** F04, F42. **KW** International Policy Coordination. Nominal GNP Targeting. Monetary Policy Rules.

AB The paper starts by reviewing three sorts of obstacles to successful coordinations: the difficulties of, respectively, compliance, credibility, and certainty. It is argued that nominal-GNP-targeting may have a good chance of overcoming such obstacles. A two-country model is used to evaluate an internationally coordinated version of nominal GNP-targeting in the presence of domestic and/or foreign shocks to supply, money demand, and goods demand. In this simple framework nominal GNP-targeting comes out fairly promising, although it does not dominate alternative regimes (including global monetary targeting, global price rules or discretionary policy) under all circumstances. Simulation results based on the McKibbin-Sachs Global Model are in line with the theoretical findings.

PD April 1994. **TI** Monetary Regime Choices for a Semi-Open Country. **AA** University of California, Berkeley. **SR** University of California at Berkeley Center for International and Development Economics Research Working Paper: C94-036; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. **PG** 40. **PR** no charge. **JE** F41. **KW** Regimes. Monetary Rules. Discretion. Exchange Rates. Nominal Anchor.

AB This paper considers regime choices facing relatively small, trade-oriented, financially liberalizing, rapidly growing countries such as the East Asian NIC's. The classic question of fixed versus flexible exchange rates is considered first. Of the many factors that determine whether the advantages of fixed rates justify the loss of monetary independence, all depend on the openness of the country. One example is the advantage that stable exchange rates promote trade; the magnitude of this effect is estimated in this paper. Another example is the advantage that a fixed exchange rate can serve as a nominal anchor to monetary policy. the second half of the paper reviews the recent literature on monetary rules versus discretion, and then considers four alternative candidates for the nominal anchor for monetary policy: the money supply, nominal GNP price level, and exchange rate. It is argued that nominal GNP dominates the money supply in general, and dominates the other two candidates under certain conditions.

Freeman, Richard B.

TI The Legacy of Communist Labor Relations. **AU** Blanchflower, David G.; Freeman, Richard B.

Freeman, Richard T.

TI Inflation Targeting in the 1990's: The Experiences of New Zealand, Canada, and the United Kingdom. **AU** Ammer, John; Freeman, Richard T.

Friedman, Benjamin M.

PD December 1993. **TI** The Role of Judgement and Discretion in the Conduct of Monetary Policy: Consequences of Changing Financial Markets. **AA** Harvard University and

National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4599; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 41. **PR** $5.00. **JE** E52, E44. **KW** Monetary Policy.

AB Conventional monetary policy rules based on intermediate targets, like the growth of money or credit, rest on the presumption that relationships correcting these variables to key measures of nonfinancial economic activity like income and prices are robust. When financial markets change in such a way as to disrupt those relationships, rules based on intermediate targets no longer provide useful guides for conducting monetary policy. Under those circumstances, the central bank can instead exploit variables like money and credit as information variables. Doing so, however, inevitably requires case-by-case judgments. The greater is the impact of changing financial markets in this context, the stronger is the need for the central bank to exploit information both inclusively, in the sense of drawing on multiple and diversified sources of information rather than any one variable, and intensively, in the sense of allowing less time between policy decisions.

Fullerton, David

TI Alternatives for Managing Drought: A Comparative Cost Analysis. **AU** Fisher, Anthony C.; Fullerton, David; Hatch, Nile; Reinelt, Peter.

Fullerton, Don

PD March 1994. **TI** Household Demand for Garbage and Recycling Collection with the Start of a Price Per Bag. **AU** Fullerton, Don; Kinnaman, Thomas C. **AA** Fullerton: Carnegie-Mellon University and National Bureau of Economic Research. Kinnaman: University of Virginia. **SR** National Bureau of Economic Research Working Paper: 4670; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** $5.00. **JE** D12, Q21. **KW** Unit Pricing. Illegal Disposal.

AB This paper estimates household reaction to the implementation of unit-pricing for the collection of residential garbage. We gather original data on weight and volume of weekly garbage and recycling of 75 households in Charlottesville, Virginia, both before and after the start of a program that requires an eighty-cent sticker on each bag of garbage. This data set is the first of its kind. We estimate household demands for the collection of garbage and recyclable material, the effect on density of household garbage, and the amount of illegal dumping by households. We also estimate the probability that a household chooses each method available to reduce its garbage. In response to the implementation of this unit-pricing program, we find that households (1) reduced the weight of their garbage by 14%, (2) reduced the volume of garbage by 37%, and (3) increased the weight of their recyclable materials by 16%. We estimate that additional illegal-- or at least suspicious--disposal accounts for 0.42 pounds per person per week, or 28% of the reduction in garbage observed at the curb.

Funke, Norbert

TI A Two-Country Analysis of International Targeting of Nominal GNP. **AU** Frankel, Jeffrey A.; Funke, Norbert.

Gacon, C.

TI The Hiring Difficulties of French Enterprises: An Empirical Analysis on a Panel of Firms Using Simulation Techniques. **AU** Dabouineau, J. L.; Gacon, C.; Kramarz, F.; Lollivier, S.

Gali, Jordi

TI Sources of Real Exchange Rate Fluctuations: How Important are Nominal Shocks? **AU** Clarida, Richard; Gali, Jordi.

Gandal, Neil

PD October 1993. **TI** Compatibility Standards and Complementary Network Externalities in the PC Software Market. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 11/93; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 17. **PR** no charge. **JE** L86. **KW** Compatibility. Standards. Complementary Network Externalities.

AB This paper is an empirical study of the value of four file compatibility standards for transferring data in the PC software market. The results are that only the Lotus file compatibility standard is significant in explaining price variations and it is significant in both the (1) spreadsheet and (2) database management markets. This supports the hypothesis that the personal consumer software market exhibits complementary network externalities.

TI Strategic Entry Deterrence: Complementary Products as Installed Base. **AU** Church, Jeffrey; Gandal, Neil.

Gao, Rong

PD April 1994. **TI** Event Risk and the "Super Poison Put" in Corporate Bond Markets. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 4-94; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 34. **PR** no charge. **JE** G10, G30. **KW** Debt Contract. Event Risk. Bond Covenants.

AB Debt contracts and the conflict of interest between bondholders and shareholders are stuuieu. With risky debt outstanding, maximization of share value does not lead to maximization of firm value. Actions aimed at maximizing share value may cause wealth losses for the bondholders. When such as possibility exists, bondholders use bond covenants to restrict the firm's future behavior and to protect themselves. Of particular consideration is one of the most important bond covenants in the past decade: the "Super Poison Put". The determinants of the super poison put are analyzed and examined empirically. Investors' expectation about the issuing firm's future event risk is the key element in determining the presence of the super poison put. Investors require super poison put covenants if the issuing firms have the following financial and organizational characteristics: low insider ownership, small capitalization, high debt-equity ratio, and high liquidity position.

Garoyan, Leon

TI Dimensions of the Global Processing Tomato Industry. **AU** Moulton, Kirby; Garoyan, Leon; Hetland, Norman.

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Garratt, Rod

PD December 1993. **TI** Cores and Competitive Equilibria With Indivisibilities and Lotteries. **AU** Garratt, Rod; Qin, Cheng-Zhong. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 13-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 15. **PR** no charge. **JE** D51, C71. **KW** Indivisibilities. Lotteries. Core. Competitive Equilibrium.

AB Lotteries are introduced to the exchange model of Shapley and Scarf. In the competitive trading story, traders buy and sell probability on houses, rather than making trades involving only certain receipt and delivery. The existence of a lottery equilibrium is established. When considering the core, randomization over blocking allocations is permitted. The relationship between the cores for the model with and without randomization is examined. For economies with lotteries, lottery equilibrium allocations are contained in the core.

PD January 1994. **TI** Who Should go to College and How Much Should They Pay? **AU** Garratt, Rod; Marshall, John M. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 2-94; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 20. **PR** no charge. **JE** C61, I22, D80. **KW** Indivisibility. Insurance. College. Education.

AB A family considering the enrollment of its child in college considers the cost, the gain in human capital and the probability of completion. The two latter entities are dependent upon pre-college achievement of the child, and because pre-college achievement is a random variable, it is a risk that can be insured. Control theory characterizes the optimum insurance contract for this risk. Public finance of college education is viewed as providing the insurance. The central result is the achievement theorem, which characterizes the cut-off level of achievement for college admissions and leads to conditions on optimum taxes and fees.

Gaynor, Martin

PD April 1994. **TI** Issues in the Industrial Organization of the Market for Physician Services. **AA** Johns Hopkins University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4695; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 46. **PR** $5.00. **JE** I11, L84. **KW** Health Care. Asymmetric Information.

AB Initially, some background on early studies of the market for physician services is presented. The nature of the product being bought and sold, and of demand, are then characterized in order to establish the character of this market. The key features of this market are that the product being sold is a professional service, and that the pervasive presence of insurance for consumers is pervasive. A professional service is inherently heterogeneous, non-retradable, and subject to an asymmetry of information between buyers and sellers. These characteristics are what bestow market power on sellers, further strengthened by the fact that consumers face only a small fraction of the price of any service due to insurance. The implications of this for agency relationships between patients and physicians, and insurers (both private and public) and physicians are then discussed. Agency relationships within physician firms are also considered. Both theoretical and empirical modelling of contracting between insurers and physicians and of the joint agency problems between patient and physician and insurer and physician are recommended as areas for future research. Since failures in this market are seen to derive largely from the structure of information, the potential gains from government intervention may be sharply circumscribed.

Genesove, David

PD December 1993. **TI** Equity and Time to Sale in the Real Estate Market. **AU** Genesove, David; Mayer, Christopher, J. **AA** Genesove: Massachusetts Institute of Technology and National Bureau of Economic Research. Mayer: Federal Reserve Bank of Boston. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-2; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 16. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** D81, D83, G10. **KW** Real Estate. Loan-to-Value Ratios. Search Model.

AB Estimates from the Boston condominium market show that owners with high loan-to-value ratios take longer to sell their properties than owners with low loan-to-value ratios. When sold, properties with high loan-to-value ratios receive a higher price than units with less debt. Both of these results are consisitent with a search model in which owners "constrained" by large amounts of debt set a higher reservation price than "unconstrained" owners, accepting a lower probability of sale in exchange for a higher final sales price, and thus lend credibility to theoretical models that establish a link between sales volume and prices through changes in the equity of existing homeowners.

Ghosh, Atish R.

PD January 1994. **TI** Export Instability and the External Balance in Developing Countries. **AU** Ghosh, Atish R.; Ostry, Jonathan D. **AA** Ghosh: Princeton University. Ostry: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/8; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 15. **PR** not available. **JE** E21, F32, F41, O13. **KW** Export Earnings. Saving. Asset Accumulation.

AB Uncertainty about the export earnings accruing to a country (sometimes referred to as export instability) is an important source of macroeconomic uncertainty in many developing countries. Theory predicts that countries should react to increases in this form of uncertainty by increasing their level of savings. The resulting asset accumulations would then act as the country's insurance against the greater riskiness in its income stream. The paper tests this implication for a large sample of developing countries. In general, the results suggest that developing countries have indeed responded to increases in export instability by building up precautionary savings balances.

Golan, Amos

PD December 1993. **TI** Estimating the Size Distribution of Firms Using Government Summary Statistics. **AU** Golan, Amos; Judge, George; Perloff, Jeffrey M. **AA** Golan: University of Haifa. Judge and Perloff: University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 696; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 17. **PR** $5.75. **JE** L11, C81. **KW** Concentration Measures. Entropy Approach. Market Structure.

AB Using a maximum entropy approach, we estimate the market share of each firm in an industry based on published government summary statistics about the size distribution. We show how researchers' knowledge of the distribution would be greatly increased if the government published additional summary statistics. We propose several new measures of market structure. Further, we measure the information content of existing and new market structure measures.

Goldhaber, Daniel D.

TI Do Teachers' Race, Gender, and Ethnicity Matter?: Evidence From NELS88. **AU** Ehrenberg, Ronald G.; Goldhaber, Daniel D.; Brewer, Dominic J.

Goldin, Claudia

PD March 1994. **TI** The Meaning of College in the Lives of American Women: The Past One-Hundred Years. **AA** Harvard University and National Bureau of Economic Research. **SR** Queen's Institute for Economic Research Discussion Paper: 899; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 52. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** N30. **KW** Women. College. Careers. Education. Family. Marriage.

AB Today's college women express frustration over the reconciliation of careers as wives or paid workers. The issue is examined in the light of the historical experience of three cohorts of female college graduates in the U.S. The first, graduating 1900-1920, opted heavily for careers in a restricted set of occupations rather than marriage and motherhood. The second cohort, graduating 1940-1960, went to college in larger numbers, made it worthwhile by marrying college men with better income prospects and, like their less educated sisters, had numerous children and went to work only after motherhood and child rearing. The third cohort, graduating 1980 until recently, has had even better college participation and has sought careers based upon their college education. Many have stepped out of those careers into belated motherhood. Others have abandoned prospects of motherhood to continue their careers. Today's college women see no satisfaction in any of those life patterns.

Goldstein, Morris

PD December 1993. **TI** The Integration of World Capital Markets. **AU** Goldstein, Morris; Mussa, Michael. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/93/95; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 37. **PR** not available. **JE** F21, F30, G15. **KW** Capital Markets. Global Capital Markets. Integration of World Capital Markets.

AB This paper discusses the extent to which national capital markets have become linked and identifies several of the more important consequences of that increased degree of integration. Alternative approaches to the measurement of capital market integration are reviewed, including deviations from the law of one price, differences between actual and optimally diversified portfolios, correlations between domestic investment and domestic saving, and cross-country links in consumption behavior. Two recent episodes of large-scale international capital flows--namely, the turmoil in the European Monetary System in the fall of 1992, and the surge of capital inflows into Latin America during the last three years--are examined for insights into the workings of today's global capital market. Finally, the paper offers some concluding remarks on the future development of international capital markets, on exchange rate management, on alternative approaches to living with larger and more influential financial markets, and on the financing of investment in the formerly centrally planned economies.

Golob, John E.

PD November 1993. **TI** Inflation, Inflation Uncertainty, and Relative Price Variability: A Survey. **AA** Federal Reserve Bank of Kansas City. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-15; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 42. **PR** no charge. **JE** E31, E30. **KW** Inflation. Prices.

AB To briefly preview the general results of this survey, there is substantial evidence that increases in inflation are associated with increases in both inflation uncertainty and price dispersion. Several different models have been developed to explain these relationships, with widely differing implications about the impact of inflation on economic efficiency and welfare. Thus far, no single model is consistent with all of the empirical evidence. But with the exception of the 1970's, the evidence leans towards models in which higher inflation leads to more inflation uncertainty and price dispersion. However, efforts to quantify any economic losses attributable to these elements of inflation are inconclusive. While there are several time series papers that connect inflation uncertainty to reductions in employment and output, most of this research encompasses the 1970's. Since oil shocks are often acknowledged to be dominant economic events of this decade, empirical results from this era may not be applicable for estimating the impact of an exogenous change in inflation.

Golub, Stephen S.

PD January 1994. **TI** Comparative Advantage, Exchange Rates, and G-7 Sectoral Trade Balances. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/5; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 15. **PR** not available. **JE** F14, F32. **KW** Sectoral Trade Balance. Comparative Advantage. Ricardian Framework. G-7.

AB This paper uses a Ricardian framework to clarify the role of microeconomic and macroeconomic factors governing the time series and cross-section behavior of sectoral trade balances. Unit labor costs and trade balances are calculated for several sectors for the seven major industrial countries. The time series and cross-section variation in sectoral unit labor costs is decomposed into relative productivity, wage differentials, and exchange rate variations. The main findings are that changes over time in sectoral trade balances, especially for the United States and Japan, are quite well explained by the evolution of unit labor cost, suggesting that trade patterns conform to comparative advantage. The cross-section results are, however, less conclusive.

PD March 1994. **TI** The United States-Japan Current Account Imbalance: A Review. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/8; International Monetary Fund, Washington, DC 20431. **PG** 24. **PR** not available. **JE** F14, F32. **KW** Trade. Current Account. Exchange

Rates. Japan.
AB This paper reviews the macroeconomic and microeconomic dimensions of the United States-Japan conflict over trade. From a macroeconomic perspective, there is nothing surprising about Japan's surpluses, given global trends in saving and investment. The current accounts of the United States and Japan have both responded to exchange rate changes in a normal fashion with about a two-year lag. Although not the source of the Japanese current-account surplus, a key issue in the debate is the nature of Japanese trade policy and its possible effects on trade patterns. Empirical studies attempting to determine whether Japan's trade prices and quantities are abnormal have arrived at conflicting conclusions.

Gomory, Ralph E.

TI On Efficiency and Comparative Advantage in Trade Equilibria Under Scale Economies. **AU** Baumol, William; Gomory, Ralph E.

Gordon, Roger

PD March 1994. **TI** Why Is There Corporate Taxation in a Small Open Economy? The Role of Transfer Pricing and Income Shifting. **AU** Gordon, Roger; MacKie-Mason, Jeffrey K. **AA** Gordon: University of Michigan and National Bureau of Economic Research. MacKie-Mason: University Energy Center and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4690; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** E20, F41, H25. **KW** Labor Tax. Capital Mobility. Foreign Direct Investment.
AB Several recent papers argue that corporate income taxes should not be used by small, open economies. With capital mobility, the burden of the tax falls on fixed factors and the tax system is more efficient if labor is taxed directly. However, corporate taxes not only exist but rates are roughly comparable with the top personal tax rates. Past models also forecast that multinationals should not invest in countries with low corporate tax rates, since the surtax they owe when profits are repatriated puts them at a competitive disadvantage. Yet such foreign direct investment is substantial. We suggest that the resolution of these puzzles may be found in the role of income shifting, both domestic (between the personal and corporate tax bases) and cross-border (through transfer pricing). Countries need cash-flow corporate taxes as a backstop to labor taxes to discourage individuals from converting their labor income into otherwise untaxed corporate income. We explore how these taxes can best be modified to deal as well with cross-border shifting.

Gordon, Stephen F.

TI Business Cycle Durations. **AU** Filardo, Andrew J.; Gordon, Stephen F.

Gospel, Howard F.

PD March 1994. **TI** The Decline of Apprenticeship Training in Britain. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 189; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 32. **PR** no charge. **JE** J24, J41. **KW** Human Capital. Occupational Choice. Labor Productivity.
AB This paper examines the development of apprenticeship training in Britain over a long perspective. The amount and quality of apprenticeship training has fluctuated over time, but the proportion of apprentices in the workforce has declined over the last quarter century. The reasons for this decline are examined and an explanation is preferred in terms of the interaction between the removal of institutional supports and a failure on the part of employers to sustain the system. Though apprenticeship training had many disadvantages, it also had real advantages which in many industries have been largely lost. Britain now finds itself with a very mixed system of industrial training, the effectiveness of which is uncertain.

PD March 1994. **TI** Whatever Happened to Apprenticeship Training? A British, American, Australian Comparison. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 190; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 35. **PR** no charge. **JE** J24, J41. **KW** Human Capital. Occupational Choice. Labor Productivity.
AB This paper examines the development of apprenticeship training in three English-speaking countries where apprenticeship has fared very differently. It declined at an early date in the U.S. in most sectors of the economy; it survived intact in Britain well into the post-Second World War period, and it has survived relatively strongly in Australia up to the present day, though it is now under some pressure. The reasons for this decline are examined and an explanation is preferred in terms of the interaction between the institutional supports and the ability and need felt by employers to sustain the system. Where apprentice training survives in these English-speaking countries, there is much to commend its continued existence. However, to survive in the future or to be revived, it needs significant institutional and government support and incentives or compulsions for employers.

Gottfries, Nils

PD November 1993. **TI** Discrimination and Open Unemployment in a Segmented Labor Market. **AU** Gottfries, Nils; McCormick, Barry; **AA** Gottfries: Institute for International Economics Studies and Stockholm University. McCormick: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9320; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 26. **PR** no charge. **JE** J64, J71. **KW** Primary Sector. Firm-Specific Training. Imperfect Information.
AB Jobs in the primary sector require firm-specific training, with wages determined as a result of bargaining. Firms pay for the training and since they are imperfectly informed about worker productivity, they test workers before hiring them. The secondary sector is competitive. Taking a job in the secondary sector signals low productivity, and therefore workers in the secondary sector are unable to get jobs in the primary sector. Open unemployment coexists with unfilled vacancies for low wage jobs.

Gourieroux, C.

TI Linear Factor Models and the Term Structure of Interest Rates. **AU** Clement, E.; Gourieroux, C.; Monfort, A.

PD May 1994. **TI** Estimation of the Term Structure from

Bond Data. **AU** Gourieroux, C.; Scaillet, O. **AA** Gourieroux: CREST and CEPREMAP. Scaillet: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9415; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 25. **PR** no charge. **JE** E43, C51. **KW** Cash Flow Correction. Spline. Local Regression.

AB We present and compare different statistical approaches to determine the term structure of interest rates from bond data. All these approaches allow for correction of cash flows and maturity effects. They may be parametric: (regression models), or nonparametric (splines and local regressions). An application to French data is described.

Green, Gordon R.

PD July 1993. **TI** An Incomplete Information Core of a Dynamic Economy. **AA** Unversity of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9314; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 17. **PR** Canada $7.00; Elsewhere $9.00. **JE** D91, D83. **KW** Matching Problems. Dynamic Economy. Incomplete Information.

AB We extend the definition of sustainable matching plans introduced in Myerson (1988) to dynamic matching problems with discounting. When individuals discount, the distribution of individuals in the waiting population enters the feasibility constraints. Sustainable matching plans for dynamic matching problems with discounting are shown to exist. The set of sustainable matching plans is interpreted as defining a core of a class of economies with incomplete information.

Green, Richard K.

PD February 1994. **TI** Measuring the Benefits of Homeowning: Effects on Children. **AU** Green, Richard K.; White, Michelle J. **AA** Green: University of Wisconsin. White: University of Michigan. **SR** University of Chicago Center for the Study of the Economy and the State Working Paper: 93; Center for the Study of the Economy and the State University of Chicago, 1101 East 58th Street, Chicago, IL 60637. **PG** 37. **PR** $3.00; make check payable to "The University of Chicago.". **JE** R21, J24. **KW** Homeowning. Education. Selection Bias.

AB The U.S. government devotes substantial resources to encouraging households to buy rather than rent housing, but there has been little research examining whether homeowning generates benefits great enough to justify the resources devoted to it. In this paper, we examine whether children of homeowners behave in socially more desirable ways than children of renters. In particular we test whether--controlling for other factors--children of homeowners stay in school longer, have a lower probability of being arrested, or are less likely to have children themselves while they are teenagers. Four different data sets are used. We also consider the possibility that selection bias might be responsible for the importance of homeowning in explaining children's behavior. Homeowning might appear to be a significant determinant of children's success not because it is important per se, but because it captures the unmeasured effect of differences among parents. The probit results are remarkably consistent: all four data sets support the hypothesis that homeowning by parents is a statistically significant determinant of whether their children stay in school. On average, children of homeowners are found to have a 15 percentage point higher probability of staying in school when parents' income is low. In addition, children of homeowners are found to have a 2 to 4 percentage point lower probability of having children themselves by age 18. Children of homeowners also are found to have a lower probability of being arrested, but the difference is only statistically significant at the 10% level. Using an endogenous switching model which explains both parents' tenure choice and children's stay-in-school decision, we do not find evidence of selection bias. We also use cost-benefit analysis to examine whether the benefits of homeowning would justify a government policy of giving low income first-time homebuyers a one time tax credit of $5,000.

Greenstein, Shane M.

PD February 1994. **TI** Did Computer Technology Diffuse Quickly?: Best and Average Practice in Mainframe Computers, 1968-1983. **AA** University of Illinois and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4647; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 17. **PR** $5.00. **JE** O31, O33. **KW** Computer Technology.

AB An economy benefits from advances in technical frontiers only when new technology comes into general use. This paper measures the diffusion of computing equipment at a time when computing technology underwent dramatic technical improvement. These data shed light on the long lag between advances in computing technology and advances in economic performance of users. There is little evidence that long lags were produced by the "slow diffusion" of new technology embodied in new hardware. "Average practice" in computing advanced as rapidly as "best practice," lagging it by a maximum of 6 to 7 years.

Gregory, Allan W.

PD May 1994. **TI** Measuring Business Cycles with Business-Cycle Models. **AU** Gregory, Allan W.; Smith, Gregor W. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 901; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 21. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** E32, C32, C15. **KW** Business Cycles. Detrending.

AB Business cycles may be defined or measured by parametrizing detrending filters to maximize the ability of a business-cycle model to match the moments of the remaining cycles. Thus a theory can be used to guide cycle measurement. We present two applications to U.S. postwar data. In the first application the cycles are measured with a standard, real business cycle model. In the second, they are measured using information on capacity utilization and unemployment rates. Simulation methods are used to describe the properties of the GMM estimators and to allow exact inference.

Grelak, Eric

PD March 1994. **TI** A Re-Examination of the Fiorina/Plott and Eavey Voting Experiments: How Much Do Cardinal Payoffs Influence Outcomes? **AU** Grelak, Eric; Koford, Kenneth. **AA** University of Delaware. **SR** University of Delaware Department of Economics Working Paper: 94-2; College of Business and Economics, Department of Economics, University of Delaware, Newark, Delaware 19716-2720. **PG** 17. **PR** not available. **JE** D72, C92. **KW** Voting Behavior. Political Science. Payoff Structure.

AB The Fiorina/Plott (1978) committee voting experiments are among the classic results in experimental political science. The results have long been considered puzzling. Why do the players fail to move to the core? Why do they nevertheless move close to the core? Eavey (1991) examines whether these findings were due to a particular payoff structure by running the same experiments with a different payoff structure. In principle, the change in payoffs should not matter if Plott's (1967) theory of the core as the equilibrium is correct. Outcomes change when Eavey changes the payoffs, but current theories fail to explain why, or to explain the actual pattern of outcomes. This paper uses detailed descriptions of the individual and aggregate payoffs to try to explain these results. We examine whether the players try to maximize aggregate dollar payoffs or coalition aggregate payoffs. The answer is negative. We also examine whether the comparative statics created by Eavey's data can be explained by cardinal payoffs. Neither the Fiorina/Plott nor the Eavey results seems to be fully explained by current theories.

Grenier, Gilles

TI The Changing Labor Market Position of Canadian Immigrants. **AU** Bloom, David E.; Grenier, Gilles; Gunderson, Morley.

Grose, Simone D.

PD December 1993. **TI** The Use of Information Criteria for Model Selection Between Models with Equal Numbers of Parameters. **AA** King, Maxwell L. **SR** Monash Department of Econometrics Research Working Paper: 20/93; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 14. **PR** no charge. **JE** C52, C15. **KW** Marginal Likelihood. Linear Regression. Monte Carlo Methods.

AB Information criteria (IC) are used widely to choose between competing alternative models. When these models have the same number of parameters, the choice simplifies to the model with the largest maximized log-likelihood. By studying the problem of selecting either first-order autoregressive or first-order moving average disturbances in the linear regression model, we present clear evidence that a particular model can be unfairly favored because of the shape or functional form of its log-likelihood. We also find that the presence of nuisance parameters can adversely affect the probabilities of correct selection. The use of Monte Carlo methods to find more appropriate penalties and the application of IC procedures to marginal likelihoods rather than conventional likelihoods is found to result in improved selection probabilities in small samples.

Grossman, Gene M.

PD November 1993. **TI** Endogenous Innovation in the Theory of Growth. **AU** Grossman, Gene M.; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 12/93; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 40. **PR** no charge. **JE** O40, O30. **KW** Innovation. Productivity. Growth.

AB This paper makes the case that purposive, profit-seeking investments 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.

PD December 1993. **TI** The Politics of Free Trade Agreements. **AU** Grossman, Gene M.; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 14/93; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 50. **PR** no charge. **JE** F13, F15, D78. **KW** Free Trade Agreement. Regional Integration. Political Economy. Trade Policy.

AB Suppose that an opportunity arises for two countries to negotiate a free trade agreement (FTA). Will an FTA between these countries be politically viable? And if so, what form will it take? We address these questions using a political-economy framework that emphasizes the interaction between industry special interest groups and an incumbent government. We describe the economic conditions necessary for an FTA to be an equilibrium outcome, both for the case when the agreement must cover all bilateral trade and when a few, politically sensitive sectors can be excluded from the agreement.

PD February 1994. **TI** Economic Growth and the Environment. **AU** Grossman, Gene M.; Krueger, Alan B. **AA** Grossman and Krueger: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4634; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $5.00. **JE** O13, Q25. **KW** Economic Growth. Environment. Growth.

AB Using data assembled by the Global Environmental Monitoring System, we examine the reduced-form relationship between various environmental indicators and the level of a country's per capita income. Our study covers four types of indicators: concentrations of urban air pollution; measures of the state of the oxygen regime in river basins; concentrations of fecal contaminants in river basins; and concentrations of heavy metals in river basins. We find no evidence that environmental quality deteriorates steadily with economic growth. Rather, for most indicators, economic growth brings an initial phase of deterioration followed by a subsequent phase of improvement. The turning points for the different pollutants vary, but in most cases they come before a country reaches a per capita income of $8,000.

Gruber, Jonathan

PD August 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** Massachusetts Institute of Technology Department of Economics Working Paper: 94-3; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 24. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** J32, J62, I18. **KW** Job-Lock. Insurance Portability. Health Care Reform. Employer-Provided Insurance.

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 sizeable share of job-lock arises from short run concerns over portability rather than from long run problems.

PD August 1993. TI Health Insurance Availability and the Retirement Decision. 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 Massachusetts Institute of Technology Department of Economics Working Paper: 94-4; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 29. PR $8.00 Domestic; $10.00 Overseas; $5.00 Student. JE I18, H51, J14. KW Health Care Reform. Retirement. Employer-Provided Insurance. Continuation Coverage.

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 sizeable and significant effect of continuation coverage on retirement: one year of mandated continuation benefits raises retirement rates by 20%. The effect appears to be uniform at all ages rather than larger near the age of Medicare eligibility. There is also a large increase in the insurance coverage of individuals who would have retired in the absence of continuation benefits. Our findings have important implications for policies which change the insurance coverage of early retirees, such as national health insurance.

PD November 1993. TI The Labor Market Effects of Introducing National Health Insurance: Evidence From Canada. AU Gruber, Jonathan; Hanratty, Maria. AA Gruber: Massachusetts Institute of Technology and National Bureau of Economic Research. Hanratty: Princeton University and National Bureau of Economic Research. SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-5; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. PG 22. PR $8.00 Domestic; $10.00 Overseas; $5.00 Student. JE H51, I18. KW Employer-Provided Insurance. Job Mobility. Health Care Reform. Canada.

AB While National Health Insurance (NHI) plans in the U.S. are often opposed on the basis of their potential disemployment effects, there is no existing evidence on the effects of NHI on employment. We provide such evidence by examining the employment consequences of NHI in Canada, using the fact that NHI was introduced on a staggered basis across the Canadian provinces. We examine monthly data on employment, wages, and hours across 8 industries and 10 provinces over the 1961-1975 period. We find that employment actually rose after the introduction of NHI; wages increased as well, while average hours were unchanged.

TI Saving Babies: The Efficacy and Cost of Recent Expansions of Medicaid Eligibility for Pregnant Women. AU Currie, Janet; Gruber, Jonathan.

Guegan, D.

TI Non-Parametric Estimation of the Chaotic Function and the Invariant Measure of a Dynamical System. AU Bosq, D.; Guegan, D.

TI Minimum Hellinger Distance Estimates for General Bilinear Time Series Models. AU Hili, O.; Guegan, D.

Gunderson, Morley

TI The Changing Labor Market Position of Canadian Immigrants. AU Bloom, David E.; Grenier, Gilles; Gunderson, Morley.

Gustman, Alan L.

PD January 1994. TI Retirement In a Family Context: A Structural Model for Husbands and Wives. AU Gustman, Alan L.; Steinmeier, Thomas L. AA Gustman: Dartmouth College and National Bureau of Economics. Steinmeier: Texas Tech University. SR National Bureau of Economic Research Working Paper: 4629; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 49. PR $5.00. JE C33, C51, J14. KW Retirement Model. Family Retirement.

AB A structural econometric model of retirement of married couples is specified and estimated with recent panel data from the NLS for Mature Women. A coincidence of spouses retiring together, despite the younger ages of wives, suggests explicit efforts at coordination. The estimates suggest that one reason is a coincidence of tastes for leisure. More importantly, each spouse, and perhaps husbands in particular, values retirement more once their spouse has retired. The opportunity set accounts for peaks in the retirement hazards of each spouse, but coordination in opportunities is not responsible for coordination of retirement dates.

Hakkio, Craig S.

PD October 1993. TI The Marginal Income Tax Rate Schedule From 1930 to 1990. AU Hakkio, Craig S.; Rush, Mark; Schmidt, Timothy J. AA Hakkio and Schmidt: Federal Reserve Bank of Kansas City. Rush: University of Florida. SR Federal Reserve Bank of Kansas City Research Working Paper: 93-12; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. PG 34. PR no charge. JE E62. KW Income Tax. Taxation.

AB In this paper we make several contributions designed to help fill some of the gaps in the literature on how marginal tax rates can affect economic variables. First, we have written a computer program that will calculate the marginal tax rate for any level of income for the period 1930 to 1990. The program is written in Gauss and available upon request. The second section of the paper illustrates marginal tax rate schedules for the years between 1930 and 1990. We show that these have undergone substantial changes over the years. We then provide some evidence on Barro's(1979) hypothesis concerning the smoothing of tax rates. The next section studies the effect of changes in the entire tax rate schedule--its level, slope and curvature--on GDP. Since the marginal tax rates we used may be endogenous, the penultimate section constructs "full employment marginal tax rates," and studies their effect on real GDP.

Hall, Alastair R.

PD April 1994. **TI** Judging Instrument Relevance in Instrumental Variables Estimation. **AU** Hall, Alastair R.; Rudebusch, Glenn D.; Wilcox, David W. **AA** Hall: North Carolina State University. Rudebusch and Wilcox: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-3; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 26. **PR** no charge. **JE** C12. **KW** Instrument Relevance. Pre-Test Bias.

AB Recent research has emphasized the poor finite-sample performance of the instrumental variables (IV) estimator when the instruments are weakly correlated with the regressors. To address this problem, a variety of statistics intended to judge instrument relevance have been proposed in the literature. We show how the canonical correlations between the regressors and instruments can provide a measure of instrument relevance in the general multiple-instrument-multiple-regressor case. However, our simulation results show that the use of any such relevance measure in choosing among alternative instrument sets may actually exacerbate the poor finite-sample properties of the IV estimator.

Haltiwanger, John

TI Downsizing and Productivity Growth: Myth or Reality. **AU** Baily, Martin Neil; Bartelsman, Eric J.; Haltiwanger, John.

TI A Comparison of Job Creation and Job Destruction in Canada and the United States. **AU** Baldwin, John; Dunne, Timothy; Haltiwanger, John.

TI Downsizing and Productivity Growth: Myth or Reality? **AU** Baily, Martin Neil; Bartelsman, Eric J.; Haltiwanger, John.

Hamermesh, Daniel S.

PD January 1994. **TI** New Facts about Factor-Demand Dynamics: Employment, Jobs and Workers. **AU** Hamermesh, Daniel S.; Hassink Wolter H.J.; Van Ours, Jan C. **AA** Hammermesh: University of Texas and National Bureau of Economic Research. Hassink: Vrije Universiteit. Van Ours: Tinbergen Institute. **SR** National Bureau of Economic Research Working Paper: 4625; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** $5.00. **JE** J23, J63, J64. **KW** Job Creation and Distruction. Employment Fluctuations.

AB We provide a unified discussion of the relations among flows of workers, changes in employment and changes in the number of jobs at the level of the firm. Using the only available set of data (a nationally representative sample of Dutch firms in 1988 and 1990) we discover that: 1) Nearly half of all hiring is by firms where employment is not growing; 2) Over half of all firing is by firms that are not contracting; 3) Most firing is by firms that are also hiring; 4) Flows of workers within firms are small compared to flows into and out of firms; and 5) Accounting for simultaneous creation and destruction of jobs within firms adds roughly 15 percent to estimates of economywide job creation and destruction. The results imply that macroeconomic fluctuations can have substantial effects beyond those indicated by net employment changes at the firm level, and that studies of dynamic factor demand must account for variations in gross flows of workers.

Hanemann, W. Michael

TI Revenue Instability Induced by Conservation Rate Structures: An Empirical Investigation of Coping Strategies. **AU** Chesnutt, Thomas W.; Bamezai, Anil; Hanemann, W. Michael.

PD March 1994. **TI** Contingent Valuation and Economics. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 697; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 28. **PR** $9.25. **JE** H41, D12, D61. **KW** Natural Resources. Cost-Benefit Analysis. Non-Use Value.

AB The question at issue is this: can we, as social scientists, measure in monetary terms the value that people place on the natural environment, or other public goods, when there is no other corroborating market behavior that would allow measurement by revealed preference methods? One of the great errors of analysis is the fallacy of misplaced precision-meaning the wrong thing with exquisite precision, rather than the right thing with lesser accuracy. It certainly is true that no number can sometimes be better than some number. Is it true that no number must always be better than some number? Is it, true, as Diamond and Hausman (DH) assert, that CV surveys never measure people's preferences and are never a suitable source of information on values in either benefit-cost analysis or damage assessment? DH take the position that ordinary people are hopelessly ill-informed, liable to exaggerate the damages from oil spills, and should not be trusted to make judgements concerning monetary values. Empirical demand analysis traditionally dealt with a representative consumer and broadly defined commodities. This was driven by the type of data available, which were generally highly aggregated over both individuals and commodities. Yet our observation of economic life shows that this is too simplistic. Contingent Valuation provides one way in which the more realistic theory of individual behavior can be given practical expression. It provides one way of tracing out the demand curve for a commodity that cannot be revealed through market data, but nevertheless exists and should count in an economic analysis.

Hanratty, Maria

TI The Labor Market Effects of Introducing National Health Insurance: Evidence From Canada. **AU** Gruber, Jonathan; Hanratty, Maria.

Hao, Kang

PD December 1993. **TI** Testing for Structural Change in

Cointegrated Regression Models. **AU** Hao, Kang; Inder, Brett. **AA** Monash University. **SR** Monash Department of Econometrics Research Working Paper: 21/93; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 19. **PR** no charge. **JE** C22, C12. **KW** Structural Change Cointegration. Fluctuation Test.

AB This paper investigates the structural change problem in cointegration regression models. We derive the large sample asymptotic distribution of the CUSUM test with OLS residuals. Then, based on the idea of Ploberger et al. (1989), we propose a Modified Fluctuation test which can be used to detect partial structural change. The asymptotic distribution of the Modified Fluctuation test is found to be free of nuisance parameters. The local power of both the OLS based CUSUM test and Modified Fluctuation test are also examined. It is found that both tests have non-trivial local power irrespective of the particular type of structural change. Finally, a small Monte Carlo simulation is conducted to investigate the finite sample performance of both tests.

Harris, Trevor S.

TI Accounting Standards, Information Flow, and Firm Investment Behavior. **AU** Cummins, Jason G.; Harris, Trevor S.; Hassett, Kevin A.

Harvey, Andrew

PD January 1994. **TI** Seasonality in Dynamic Regression Models. **AU** Harvey, Andrew; Scott, Andrew. **AA** Harvey: London School of Economics. Scott: All Souls College and London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 184; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 41. **PR** no charge. **JE** C51, E21. **KW** Cointegration. Consumption Function. Error Correction. Unit Roots.

AB This paper examines the implications of treating seasonality as an unobserved component which changes slowly over time. This approach simplifies the specification of dynamic relationships by separating non-seasonal from seasonal factors. We illustrate this approach using the consumption model of Davidson et al. (1978) and estimate a stable error correction model between consumption, income, and prices over the period 1958-1992. More generally, we argue that autoregressive models are unlikely to successfully model slowly changing seasonality, and may cofound seasonal effects with the dynamic responses of prime interest. Our approach can be used in a wide range of cases and we show that there is little loss in efficiency even if seasonality is deterministic.

Harvey, Campbell R.

PD January 1994. **TI** Predictable Risk and Returns in Emerging Markets. **AA** Duke University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4621; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** $5.00. **JE** G11, G15, O16. **KW** Foreign Equity Markets. Global Portfolio Risk. Emerging Capital Markets.

AB The emergence of new equity markets in Europe, Latin America, Asia, the Mideast and Africa provides a menu of opportunities for investors. These markets exhibit high expected returns as well as high volatility. Importantly, the low correlations among developed countries' equity markets significantly reduce the unconditional portfolio risk of a world investor. However, standard global asset pricing models, which assume complete integration of capital markets, fail to explain the cross-section of average returns in emerging countries. An analysis of the predictability of the returns reveals that emerging market returns are more likely than developed countries to be influenced by local information.

TI Sources of Risk and Expected Returns in Global Equity Markets. **AU** Ferson, Wayne E.; Harvey, Campbell R.

PD January 1994. **TI** Conditional Asset Allocation in Emerging Markets. **AA** Duke University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4623; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $5.00. **JE** G11, G15, O16. **KW** Emerging Capital Markets. Asset Allocation.

AB Within the context of conditional asset allocation strategies, this paper explores the implications of the low correlations of the emerging market returns with developed market returns and the relatively high degree predictability of emerging countries' returns. It is well known that low correlations improve investment opportunities and my research provides out-of-sample validation of the improved performance. However, the most dramatic enhancement is generated by the use of conditioning information. Portfolio strategies that use conditioning information to predict emerging market returns produce impressive out-of-sample performance over the 1980-1992 period.

PD February 1994. **TI** What Determines Expected International Asset Returns? **AU** Harvey, Campbell R.; Solnik, Bruno; Zhou, Guofu. **AA** Harvey: Duke University and National Bureau of Economic Research. Solnik: HEC School of Management. Zhou: Washington University. **SR** National Bureau of Economic Research Working Paper: 4660; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** F30, G12. **KW** Latent Factor. Foreign Exchange Risk. Risk Loading.

AB This paper characterizes the forces that determine time-variation in expected international asset returns. We offer a number of innovations. By using the latent factor technique, we do not have to prespecify the sources of risk. We solve for the latent premiums and characterize their time-variation. We find evidence that the first factor premium resembles the expected return on the world market portfolio. However, the inclusion of this premium alone is not sufficient to explain the conditional variation in the returns. We find evidence of a second factor premium which is related to foreign exchange risk. Our sample includes new data on both international industry portfolios and international fixed income portfolios. We find that the two latent factor model performs better in explaining the conditional variation in asset returns than a prespecified two factor model. Finally, we show that differences in the risk loadings are important in accounting for the cross-sectional variation in the international returns.

PD February 1994. **TI** The Impact of the Federal Reserve Bank's Open Market Operations. **AU** Harvey, Campbell R.; Huang, Roger D. **AA** Harvey: Duke University and National Bureau of Economic Research. Huang: Vanderbilt University. **SR** National Bureau of Economic Research Working Paper:

4663; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** $5.00. **JE** E47, E51, E52, G14. **KW** Fed Time. Money Supply. Volatility. Fixed Income. Foreign Currency.

AB The Federal Reserve Bank has the ability to change the money supply and to shape the expectations of market participants through their open market operations. These operations may amount to 20% of the day's volume and are concentrated during the half hour known as "Fed Time". Using previously unavailable data on open market operations, our paper provides the first comprehensive examination of the impact of the Federal Reserve Bank's trading on both fixed income instruments and foreign currencies. Our results detail a dramatic increase in volatility during Fed Time. Surprisingly, the Fed Time volatility is higher on days when open market operations are absent. In addition, little systematic differences in market impact are observed for reserve-draining versus reserve-adding operations. These results suggest that the financial markets correctly anticipate the purpose of open market operations but are unable to forecast the timing of the operations.

Hassett, Kevin A.

TI Accounting Standards, Information Flow, and Firm Investment Behavior. **AU** Cummins, Jason G.; Harris, Trevor S.; Hassett, Kevin A.

Hassink Wolter H.J

TI New Facts about Factor-Demand Dynamics: Employment, Jobs and Workers. **AU** Hamermesh, Daniel S.; Hassink Wolter H.J.; Van Ours, Jan C.

Hatch, Nile

TI Alternatives for Managing Drought: A Comparative Cost Analysis. **AU** Fisher, Anthony C.; Fullerton, David; Hatch, Nile; Reinelt, Peter.

Head, Allen C.

TI Monopolistic Competition, Increasing Returns, and the Effects of Government Spending. **AU** Devereux, Michael B.; Head, Allen C.; Lapham, Beverly J.

Helkie, William L.

PD May 1994. **TI** International Economic Implications of the End of the Soviet Union. **AU** Helkie, William L.; Howard, David H.; Marquez, Jaime. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 470; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 32. **PR** no charge. **JE** F40, C50, Q40, P20. **KW** Former Soviet Union. Oil Market. OPEC. International Economy.

AB This paper quantifies roughly some potential economic developments in the former Soviet Union (FSU), if substantive economic reforms go forward, and assesses the likely implications of these developments for the rest of the world. It is assumed that a move to world prices for energy and other economic reforms result in a significant increase in FSU net oil exports. This paper develops and analyzes several alternative scenarios, including cases in which the FSU is specified to cooperate with OPEC. The simulations reported in this paper indicate that the FSU countries would be major beneficiaries of market reforms, regardless of what happens on the world oil market. However, only in the case in which the world price of oil declines markedly would the countries outside of OPEC notice to any significant extent the macroeconomic consequences of events in the FSU.

Helpman, Elhanan

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

TI The Politics of Free Trade Agreements. **AU** Grossman, Gene M.; Helpman, Elhanan.

Helwege, Jean

PD July 1994. **TI** How Long do Junk Bonds Spend in Default? **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-16; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 42. **PR** no charge. **JE** G33. **KW** Default. Financial Distress. Bankruptcy.

AB Jensen (1989,1991) hypothesized that highly levered firms would easily renegotiate their debts in the event of financial distress because of the high going-concern value that their debt claimants would like to preserve. This paper is an examination of the factors affecting the length of time junk bonds spend in default. Of particular interest is whether firms with high operating earnings, but insufficient funds for debt service, have shorter default durations than other distressed firms. The effects of these factors are estimated with a Cox regression on a sample of original-issue high yield bonds that defaulted between 1980-1991. The results suggest the LBO's do spend less time in default than other issuers, but firm value appears to have no explanatory power in the estimations of default spells. Other factors affecting the duration of default spells are size, the use of speculative-grade public bond financing, environmental liabilities, underfunded pensions and fraudulent conveyance lawsuits.

Hendershott, Robert

TI The Federal Deposit Insurance Fund That Didn't Bark in the Night. **AU** Kane, Edward J.; Hendershott, Robert.

Hendricks, Kenneth

PD April 1993. **TI** A Survey of Recent Empirical Work Concerning Auctions. **AU** Hendricks, Kenneth; Paarsch, Harry J. **AA** Hendricks: University of British Columbia. Paarsch: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9309; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 24. **PR** Canada $7.00; Elsewhere $9.00. **JE** D44. **KW** Auctions. Empirical Analysis.

AB In this paper, we survey some recent empirical work concerning auctions. We outline two complementary approaches to the empirical analysis of auctions, and then discuss several recent developments in the econometric analysis of field data concerning auctions.

PD December 1993. **TI** Determinants of the Timing and Incidence of Exploratory Drilling on Offshore Wildcat Tracts. **AU** Hendricks, Kenneth; Porter, Robert H. **AA** Hendricks: University of British Columbia. Porter: Northwestern University and National Bureau of Economic Research.

SR National Bureau of Economic Research Working Paper: 4605; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** $5.00. **JE** L71, D81, D83. **KW** Exploratory Offshore Drilling.

AB This paper documents exploratory drilling activity on offshore wildcat oil and gas leases in the Gulf of Mexico that were sold between 1954 and 1990, with emphasis on the period before 1980. For each year of the lease, we study the determinants of the decision whether or not to begin exploratory drilling, and the outcome of any drilling activity. Our results indicate that equilibrium predictions of plausible noncooperative models are reasonably accurate, and more descriptive than those of cooperative models of drilling timing. We discuss why noncooperative behavior may occur, and the potential gains from coordination.

Hendry, Scott

PD May 1993. **TI** Endogenous Money and Goods Production in a Search Model. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9316; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 28. **PR** Canada $7.00; Elsewhere $9.00. **JE** E51, D83. **KW** Private Money. Medium of Exchange. Commodity Money.

AB This paper presents a search theoretic model of money in which the production of both goods and money is endogenous. Money in this model is a private money such as gold. Money must have a higher production cost than consumption goods if it is to circulate as a medium of exchange. Production, storage, and depreciation costs must not be too large in order for a money to be acceptable. Multiple media of exchange are possible provided no money has strictly higher costs of use. Optimal government policy may be to either tax private money production costs or to introduce a fiat money in order to decrease the supply of the commodity money.

Hercowitz, Zvi

TI The Political Economy of Immigration. **AU** Cukierman, Alex; Hercowitz, Zvi; Pines, David.

Hess, Gregory D.

PD May 1994. **TI** Taxation and Intergenerational Transfers With Family Size Heterogeneity: Do Parents With More Children Prefer Higher Taxes? **AU** Hess, Gregory D.; Orphanides, Athanasios. **AA** Hess: University of Kansas. Orphanides: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-8; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 18. **PR** no charge. **JE** E21, H62. **KW** Intertemporal Taxation. Ricardian Equivalence.

AB This paper examines the implications of family size heterogeneity for Ricardian households and employs survey data to determine whether or not individual household preferences towards taxation conform to the Ricardian model. Using a dynastic model of intergenerational linkages, we show that the expected size of the dynastic family serves as an index of the strength of its intergenerational link to future generations. Heterogeneity in family size leads to conflicting preferences across households over the intertemporal allocation of taxes, with households with larger expected families in favor of deficit reductions. Aggregating over the heterogeneous responses to a tax cut results in a Keynesian propensity to consume, even with operative bequest motives and lump sum taxation. Using the frequency distribution of family size for the U.S., the model yields an increase in aggregate consumption of about 20 cents for every $1 in tax cuts. We test the prediction relating family size and tax preferences using survey data from the General Social Survey. Controlling for numerous demographic and socio-economic characteristics of the respondents, we find that, consistent with the model, parents with more children prefer higher taxes. We conclude that family size heterogeneity can potentially reconcile Ricardian behavior at the household level with the estimates of a Keynesian response of aggregate consumption to tax cuts.

Hetland, Norman

TI Dimensions of the Global Processing Tomato Industry. **AU** Moulton, Kirby; Garoyan, Leon; Hetland, Norman.

Hewings, G. J. D.

TI The Choice of Input-Output Table Embedded in Regional Econometric Input-Output Models. **AU** Israilevich, P. R.; Mahidhara, R.; Hewings, G. J. D.

Hili, O.

PD December 1993. **TI** Minimum Hellinger Distance Estimates for General Bilinear Time Series Models. **AU** Hili, O.; Guegan, D. **AA** Hili: Universite de Strasbourg and CREST. Guegan: Universite Paris XIII and CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9401; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 13. **PR** no charge. **JE** C10, C13, C23. **KW** Bilinear Models. Nonlinear Time Series. Hellinger Distance Estimation.

AB In the present paper, a framework for parametric estimation of general bilinear models is developed. Strong consistency and asymptotic normality of minimum Hellinger distance estimates for the coefficient of this class of nonlinear time series are investigated. The main interest for these estimates is motivated by their robustness under perturbations as it has been emphasized in Beran. Our results extend those of Beran for parametric models with independent samples.

Hodrick, Robert J.

TI The Implications of First-Order Risk Aversion For Asset Market Risk Premiums. **AU** Bekaert, Geert; Hodrick, Robert J.; Marshall, David A.

Hoff, Karla

PD February 1994. **TI** Non-Leaky Buckets: Optimal Redistributive Taxation and Agency Costs. **AU** Hoff, Karla; Lyon, Andrew B. **AA** Hoff: University of Maryland. Lyon: University of Maryland and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4652; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** $5.00. **JE** D31, D61, H21, H23, H24. **KW** Income Redistribution. Wage Tax. Distortionary Tax. Human Capital. Pareto Improvement.

AB Economists have generally argued that income redistribution comes at a cost in aggregate incomes. We provide a counter-example in a model where private information gives rise to incentive constraints. In the model, a wage tax creates the usual distortion in labor-leisure choices, but the grants that it finances reduce a distortion in investment in human capital. We prove that simple redistributive policies can yield Pareto improvements and increase aggregate incomes. Where higher education is beyond the reach of the poor, the wage tax-transfer policy is, under most circumstances, more effective than targeted credit taxes or subsidies in increasing over-all efficiency.

Holt, Debra J.

PD May 1994. **TI** Coherent Belief Revision and Equilibrium Selection in Games. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 892; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 21. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** C72, C73, C63. **KW** Rationality in Games. Belief Revision. Equilibrium Selection.

AB What predictions about behavior in extensive form games can we rigorously justify as implied by rationality or mutual or common knowledge of that rationality? This paper models rational belief revision in extensive form games and uses numerical methods to examine the implications for equilibrium predictions. In general, in dynamic strategic choice situations, the method of belief revision adopted by the players will determine which of a set of possible equilibria (or non-Nash strategy choices) is selected. This intuition has motivated critiques of subgame perfection, including the argument that the reasoning supporting backward induction is paradoxical. This paper examines this question with models of the dynamics of transitions between epistemic states. These models give belief revision functions which are well-defined for updating on zero probability events and are equivalent to Bayesian updating where that is defined. Thus, the gap between the standard game model and the intuition driving some of the critiques of backward induction can be bridged with this approach. It appears that the class of equilibria that we obtain with this model are neither implied by, nor imply, Nash equilibrium. The sequential nature of the definition of individual rationality and the possibility of rational belief revision yield a model which implies sequential equilibrium when there is sufficient mutual knowledge of rationality and selects equilibria that satisfy forward induction. But since neither knowledge of the other players' sequential rationality nor correct beliefs are imposed, non-Nash, but individually sequentially rational, outcomes are also supported in equilibrium.

Hooker, Mark

TI Unemployment, Oil Prices and the Real Interest Rate: Evidence From Canada and the UK. **AU** Carruth, Alan; Hooker, Mark; Oswald, Andrew.

Howard, David H.

TI International Economic Implications of the End of the Soviet Union. **AU** Helkie, William L.; Howard, David H.; Marquez, Jaime.

Hoynes, Hilary Williamson

PD March 1994. **TI** The Impact of Demographics on Housing and Non-Housing Wealth in the United States. **AU** Hoynes, Hilary Williamson; McFadden, Daniel. **AA** University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4666; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** $5.00. **JE** D12, D63, J11. **KW** Capital Gains. Welfare. Savings.

AB Equity in housing is a major component of household wealth in the United States. Steady gains in housing prices over the last several decades have generated large potential gains in household wealth among homeowners. Mankiw and Weil (1989) and McFadden (1993b) have argued that the aging of the U.S. population is likely to induce substantial declines in housing prices, resulting in capital losses for future elderly generations. However, if households can anticipate changes in housing prices, and if they adjust their non-housing savings accordingly, then welfare losses in retirement could be mitigated. This paper focuses on two questions: (1) Are housing prices forecastable from current information on demographics and housing prices?; and (2) How are household savings decisions affected by capital gains in housing? We use metropolitan statistical area (MSA) level data on housing prices and demographic trends during the 1980's and find mixed evidence on the forecastability of housing prices. Further, we use data on five-year savings rates from the Panel Study of Income Dynamics and find no evidence that households engage in changing their non-housing savings in response to expectations about capital gains in housing. Thus, the projected decline in housing prices could result in large welfare losses to current homeowners and large intergenerational equity differences.

Hsin, Ping Lung

TI Public Pension Governance and Performance. **AU** Mitchell, Olivia S.; Hsin, Ping Lung.

Huang, Roger D.

TI The Impact of the Federal Reserve Bank's Open Market Operations. **AU** Harvey, Campbell R.; Huang, Roger D.

Hubbard, R. Glenn

TI The Political Economy of Branching Restrictions and Deposit Insurance: A Model of Monopolistic Competition Among Small and Large Banks. **AU** Economides, Nicholas; Hubbard, R. Glenn; Palia, Darius.

Hughes, Alan

TI Takeover Success or Failure? The Experience of Large and Small U.K. Companies. **AU** Cosh, Andy D.; Hughes, Alan; Kambhampati, Uma.

TI Size, Growth and Failure: An Analysis of the UK Quoted and Unquoted Company Sectors. **AU** Cosh, Andy D.; Hughes, Alan; Kambhampati, Uma.

TI The Death Process: A Comparison of Large and Small Company Failures and Acquisitions. **AU** Cosh, Andy D.; Hughes, Alan.

Hurd, Michael D.

PD December 1993. **TI** The Effects of Demographic Trends on Consumption, Saving and Government Expenditures in the U.S. **AA** SUNY, Stony Brook and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4601; National Bureau of Economic

Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $5.00. **JE** J11, H55, H51, E21. **KW** Demographic Effects. Saving. Medical Expenditures.

AB The paper reviews and analyzes forecasts of the Social Security trust funds, government spending, and other elements of aggregate income and spending. According to these forecasts, the aging of the U.S. population will require some increases in taxes to support the retirement system. It should reduce the saving rate, and the composition of output will change. By themselves, these changes seem manageable. However, the direct effects of aging are completely dominated by the projected increases in medical expenditures. Although medical costs interact with aging, most of the increases are not related to aging. Even the moderately high forecast of medical spending will require that all increases in output between now and 2020 be devoted to the consumption of medical services, allowing no increase in any other component of consumption.

Hwang, J. T. Gene

TI Maximum Likelihood Estimation of Order Restricted Parameters: A Bayesian Approach. **AU** Robert, C. P.; Hwang, J. T. Gene.

Hyde, Charles

PD June 1993. **TI** Can Market Power be Estimated? **AU** Hyde, Charles; Perloff, Jeffrey M. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 689; Department of Agricultural and Resource Economics, 207 *Giannini Hall, University of California*, Berkeley, CA 94720. **PG** 20. **PR** $8.50. **JE** L11, C52. **KW** Market Structure. Structural Models. Model Specification.

AB In the last decade and a half, several new approaches to estimating or testing market structure were developed. We examine how well three of the best-known and widely-used approaches - structural models, Panzar and Rosse (1987), and Hall (1986) - work. The structural model requires more data and more explicit assumptions than the other two methods. If correctly specified, it is the most flexible and powerful approach. There is no way of knowing, of course, if it is correctly specified. The estimate of market power is extremely sensitive to small changes in specification. Moreover, frequently the necessary data are not available. Thus, alternative approaches that require less data and are less sensitive to specification error would be very useful. All three methods are internally consistent and mathematically correct. Our question, however, concerns whether they are practical and powerful. We examine all three methods using simulation models. We then apply the Panzar-Rosse and Hall methods to actual data to determine if they produce similar answers.

Inder, Brett

TI An Empirical Investigation of Shock Persistence in Economic Time Series. **AU** Mayadunne, Geetha; Evans, Merran; Inder, Brett.

TI Testing for Structural Change in Cointegrated Regression Models. **AU** Hao, Kang; Inder, Brett.

Ireland, Norman J.

PD 1994. **TI** On the Sale of Production Rights and Firm Organization. **AU** Ireland, Norman J.; Stewart, Geoff. **AA** Ireland: University of Warwick. Stewart: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9406; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 39. **PR** no charge. **JE** D23. **KW** Production Rights. Privitization. East Europe.

AB It is argued that the owner of production rights may not be indifferent across organizational structures of producers. In particular, the owner may prefer to grant some or all of the rights to labor-managed firms. The reason is that such firms adopt a less competitive strategy and so generate more industry rent, which the owner can capture as fee payments. A mixed duopoly may be particularly attractive. The conflict between revenue-raising and the pursuit of efficiency as objectives of government privatization programs is highlighted, and the relevance to East European reform discussed.

Irwin, Douglas A.

PD February 1994. **TI** The New Protectionism in Industrial Countries: Beyond the Uruguay Round. **AA** International Monetary Fund and University of Chicago. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/5; International Monetary Fund, Washington, DC 20431. **PG** 22. **PR** not available. **JE** F13. **KW** Protectionism. Trade Protection. Uruguay Round.

AB This paper presents a broad overview of trade protection in industrial countries from the 1970's to the present. The emphasis of such measures has shifted from the protection of agriculture and basic manufacturing industries, where many industrial countries had lost (or never had) comparative advantage in the 1970's and 1980's, toward the protection and promotion of high-technology sectors in recent years. The new forms of protection--particularly subsidies and antidumping rules--have not necessarily contravened GATT rules, and the Uruguay Round fell short of reigning in such interventions. While these more recent trade interventions might in principle have an economic justification under certain conditions, theoretical, empirical, and practical considerations call for great skepticism about the desirability and efficacy of such policies. The next challenge for world trade negotiators is to contain the pressures for intervention in these areas.

Israilevich, P. R.

PD January 1994. **TI** The Choice of Input-Output Table Embedded in Regional Econometric Input-Output Models. **AU** Israilevich, P. R.; Mahidhara, R.; Hewings, G. J. D. **AA** Israilevich: Federal Reserve Bank of Chicago and Regional Economics Applications Laboratory. Mahidhara and Hewings: University of Illinois and Regional Economics Applications Laboratory. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: CES94-1; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 31. **PR** no charge. **JE** C50, C51, C67, R00, R32. **KW** Input-Output Analysis. Regional Economics. Regional Econometric Models.

AB In this paper we investigate the role of input-output data source in the regional econometric input-output models. While there has been a great deal of experimentation focused on the accuracy of alternative methods for estimating regional input-output coefficients, little attention has been directed to the role of accuracy when the input-output system is nested within a broader accounting framework. The issues of accuracy were considered in two contexts, forecasting and impact analysis focusing on a model developed for the Chicago Region. We experimented with three input-output data sources: observed regional data, national input-output, and randomly generated input-output coefficients. The effects of different sources of input-output data on regional econometric input-output model revealed that there are significant differences in results obtained in impact analyses. However, the adjustment processes inherent in the econometric input-output system seem to mute the initial differences in input-output data when the model is used for forecasting. Since applications of these types of models involve both impact and forecasting exercises, there would still seem to be a strong motivation for basing the system on the most accurate set of input-output accounts.

Jha, Raghbendra

PD March 1994. **TI** Inter-Temporal and Cross-Section Variations in Technical Efficiency in the Indian Railways. **AU** Jha, Raghbendra; Singh, Subansh P. **AA** Jha: Queen's University. Singh: Indian Statistical Institute. **SR** Queen's Institute for Economic Research Discussion Paper: 900; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 26. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** C50, L90. **KW** Panel Data. Stochastic Production Frontier.

AB This paper uses recent advances in the theory of measurement of technical efficiency using panel data (Cornwell, Schmidt and Sickles (1990), Jha and Sahni (1992,1993a)) to estimate zone specific technical efficiency in the Indian railways for the period 1966-67 to 1988-89. The analysis covers goods as well as passenger traffic. Apart from providing an indepth and precise profile of the behavior of technical efficiency in the Indian railways, this analysis provides a framework from which potentially significant policy conclusions can be drawn.

Johnson, Karen H.

PD May 1994. **TI** International Dimension of European Monetary Union: Implication for the Dollar. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 469; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 28. **PR** no charge. **JE** F36, F47. **KW** European Monetary Union. Dollar. Reserve Asset. Vehicle Currency.

AB This paper attempts to review the different elements of the international role of the dollar and, where possible, to provide quantitative information about the current scale of dollar use and how it may be changing, including in response to European monetary union. The paper considers the exchange value of the dollar, the dollar as reserve asset, the dollar as vehicle currency, and the macroeconomic implications for the U.S. of the fiscal actions likely to be required for the participating EU countries to meet the fiscal convergence criteria specified in the Maastricht Treaty. The paper finds that if Federal Reserve policy continues to contribute to confidence in the long-term value of the dollar and the process of change remains gradual, then European monetary union does not pose serious negative consequences for the international role of the dollar.

Jones, Charles I.

TI Productivity Across Industries and Countries: Time Series Theory & Evidence. **AU** Bernard, Andrew B.; Jones, Charles I.

Joyce, Theodore

PD March 1994. **TI** The Impact of Prenatal Exposure to Cocaine on Newborn Costs and Length of Stay. **AU** Joyce, Theodore; Racine, Andrew D.; McCalla, Sandra; Wehbeh, Hassan. **AA** Joyce: Baruch College and National Bureau of Economic Research. Racine: Albert Einstein College of Medicine and National Bureau of Economic Research. McCalla and Wehbeh: SUNY Health Science Center at Brooklyn. **SR** National Bureau of Economic Research Working Paper: 4673; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 12. **PR** $5.00. **JE** D12, I12. **KW** Drugs. Health Care. Pregnancy.

AB This paper determines newborn costs and lengths of stay attributable to prenatal exposure to cocaine and other illicit drugs, using as a data source all parturients who delivered at a large municipal hospital in New York City between November 18, 1991 and April 11, 1992. We perform a cross-sectional analysis in which multivariate, loglinear regressions are used to analyze differences in costs and length of stay between infants exposed and unexposed prenatally to cocaine and other illicit drugs. Adjustment is made for maternal race, age, prenatal care, tobacco, parity, type of delivery, birth weight, prematurity, and newborn infection. Urine specimens, with linked obstetric sheets and discharge abstracts, provided information on exposure, prenatal behaviors, costs, length of stay, and discharge disposition. Our principal findings show that infants exposed to cocaine and some other illicit drug stay approximately 7 days longer at a cost of $7,731 more than infants unexposed. Approximately 60 percent of these costs are indirect, the result of adverse birth outcomes and newborn infection. Hospital screening as recorded on discharge abstracts substantially underestimates prevalence at delivery, but overestimates its impact on costs.

Judge, George

TI Estimating the Size Distribution of Firms Using Government Summary Statistics. **AU** Golan, Amos; Judge, George; Perloff, Jeffrey M.

Juhn, Chinhui

PD March 1994. **TI** Wage Inequality and Industrial Change: Evidence From Five Decades. **AA** University of Houston and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4684; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** $5.00. **JE** J31. **KW** Skill. Employment. Wage Inequality.

AB Using data from the 1940-1980 Decennial Census and the 1988-1992 March Current Population Surveys, this paper examines the impact of industrial change on male wage inequality over a period of five decades (1940-1990). Alternative measures of skill such as the wage percentile, education, and occupation indicate that wage inequality between more and less skilled male workers fell substantially during the 1940's and increased most dramatically during the 1980's. Examination of industrial change over this longer time

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period shows that the demand for the most highly educated and skilled male workers relative to the least skilled male workers increased no faster during the 1970's and the 1980's than during the earlier decades. In contrast, the demand for men in the middle skill categories (such as those in basic manufacturing) expanded during the 1940's and the 1950's and contracted severely during the 1970's and 1980's. This suggests that the growth of jobs in the middle skill categories may be closely related to overall wage inequality. Cross sectional regressions based on state level data also show some empirical support for the hypothesis that a decline in demand for medium skilled groups increases overall wage inequality.

Just, Richard E.

PD April 1993. **TI** A Framework for Analyzing Specific Agricultural Policy Reform. **AU** Just, Richard E.; Rausser, Gordon C.; Zilberman, David. **AA** Just: University of Maryland, College Park. Rausser and Zilberman: University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 647; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 48. **PR** $14.25. **JE** Q18, F13, Q12. **KW** Agricultural Trade. GATT. Policy Reform.

AB Policy reform in agriculture, making it more efficient, flexible, and self-reliant, has to be made with recognition of the characteristics of this sector and economic and political constraints. Agriculture in developed countries has tended to reach situations of excessive supply, resulting in low farm product prices and low returns to farmers. past government policies have actually contributed to this excess supply problem, mostly because program benefits were linked to output. An essential element of a new policy regime is the use of policy instruments for which benefits are not directly linked to output. New policy instruments will aim and be monitored by the ability to attain several objectives, including the provision of affordable food, stable and fair farm income, sustainable resource base, environmental quality, rural preservation, and a balanced budge. It is argued that the optimal policy instruments should be determined so the rate of political substitution between two instruments is equal to the rate of efficiency substitution between the instruments when political support reflects both the extent and strength of political support. This optimality rule can be utilized in designing new policy regimes and should guide an iterative process of negotiation that leads to policy decision.

Kahn, Lawrence M.

TI International Differences in Male Wage Inequality: Institutions versus Market Forces. **AU** Blau, Francine D.; Kahn, Lawrence M.

Kaila, Martti M.

TI New, Technology-Based Companies in Cambridge in an International Perspective. **AU** Lumme, A.; Kauranen, Ilkka; Autio, Erkko; Kaila, Martti M.

Kambhampati, Uma

TI Takeover Success or Failure? The Experience of Large and Small U.K. Companies. **AU** Cosh, Andy D.; Hughes, Alan; Kambhampati, Uma.

TI Size, Growth and Failure: An Analysis of the UK Quoted and Unquoted Company Sectors. **AU** Cosh, Andy D.; Hughes, Alan; Kambhampati, Uma.

Kane, Edward J.

PD February 1994. **TI** The Federal Deposit Insurance Fund That Didn't Bark in the Night. **AU** Kane, Edward J.; Hendershott, Robert. **AA** Kane: Boston College and National Bureau of Economic Research. Hendershott: Santa Clara University. **SR** National Bureau of Economic Research Working Paper: 4648; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 15. **PR** $5.00. **JE** E42, G21, D81. **KW** Solvency. Deposit Insurance. Incentive Structure.

AB Unlike the Federal Savings and Loan Insurance Corporation and the Bank Insurance Fund, the National Credit Union Share Insurance Fund (NCUSIF) entered the 1990's in a state of accounting solvency. This paper develops evidence to show the more important fact that NCUSIF remained solvent in a market-value sense as well. Differences in institutional product lines and risk-taking opportunities between credit unions and banks and thrifts are not consequential enough to explain the differences in their funds' health. This paper explains how differences in decisionmaking environments made managerial and regulatory risk-taking incentives in the credit-union industry diverge substantially from those governing banks and savings and loans. The differences in incentive structure support the hypothesis that private coinsurance could lessen taxpayer loss exposure elsewhere in the federal deposit insurance system.

Kaplow, Louis

PD January 1994. **TI** Accuracy, Complexity, and the Income Tax. **AA** Kaplow: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4631; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 24. **PR** $5.00. **JE** H24. **KW** Income Tax.

AB The complexity of the income tax is an unending source of complaint. Compliance costs have received increasing attention and are estimated to be large. Yet most recognize that some degree of complexity is necessary if ability to pay is to be measured accurately. This article presents a framework for analyzing the value of greater accuracy in income taxation. Formulations for both distributive and incentive benefits of accuracy are offered. The question whether taxpayers have excessive or inadequate incentives to acquire information about taxable income and to challenge tax assessments is also examined.

Katsoulacos, Y.

PD March 1994. **TI** Environmental Policy Under Oligopoly with Endogenous Market Structure. **AU** Katsoulacos, Y.; Xepapadeas, A. **AA** Katsoulacos: Athens University, Centre for Economic Policy Research and Athens Institut of Economic Policy Studies. Xepapadeas: University of Crete. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9418; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 10. **PR** no charge. **JE** Q28, H21, L13, D43, D62. **KW** Emission Tax. Externalities. Oligopoly.

AB Emission taxes under both fixed number oligopoly and endogenous market structure, which are the most relevant market structures for policy issues, are examined. In the latter case, and contrary to what is expected under imperfect competition, the optimal tax could exceed marginal external damages, which implies that externalities generated by oligopolistic firms could be optimally controlled by overinternalizing environmental damages. Under endogenous market structure, a scheme consisting of a license fee and a second-best underinternalizing emission tax can increase social welfare as compared to the use of a single emission tax exceeding marginal damages.

Kauranen, Ilkka

TI New, Technology-Based Companies in Cambridge in an International Perspective. **AU** Lumme, A.; Kauranen, Ilkka; Autio, Erkko; Kaila, Martti M.

Kealy, Mary Jo

TI A Demand Theory for Number of Trips in A Random Utility Model of Recreation. **AU** Parsons, George R.; Kealy, Mary Jo.

Keeble, David

PD July 1993. **TI** Regional Influences and Policy in New Technology-Based Firm Creation and Growth. **AA** University of Cambridge. **SR** University of Cambridge Small Business Research Centre Working Papers: 34; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 11. **PR** $10.00 (L5.00); checks payable to University of Cambridge. **JE** L63, R11, L20, O14. **KW** Regional Policy. Clustering. Local Policy.

AB The paper reviews regional variations in new technology based firm (NTBF) creation and growth in Western industrialized countries, with particular reference to regional and local policies. It examines whether NTBF development has primarily been geographically clustered, as suggested by the Silicon Valley model, or spatially dispersed in terms of an urban-rural shift. It also considers the relevance of the French territorial "innovative milieux" concept for understanding NTBF clustering in regions such as Cambridge or Sophia-Antipolis, and why NTBFs in "hostile" regional environments may grow faster than their counterparts in "favored" regions, as evidenced by British and Dutch data. Finally, it suggests that national government NTBF policies can benefit less-favored regions disproportionately, and argues for local "incubator" organization provision, such as in Cambridge's St. John's Innovation Park.

PD October 1993. **TI** New Firms, Small Firms and Dead Firms: Spatial Patterns and Determinants in the United Kingdom. **AU** Keeble, David; Walker, Sheila. **AA** University of Cambridge. **SR** University of Cambridge Small Business Research Centre Working Papers: 36; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 20. **PR** $10.00 (L5.00); checks payable to University of Cambridge. **JE** R11. **KW** Small Firm Growth. Firm Failure. Urban Agglomeration.

AB The paper analyzes marked country-level spatial variations in new enterprise formation, growth in numbers of small businesses, and business failures in the UK, 1980-90, as measured by VAT business registration and deregistration statistics. Multivariate econometric models for different periods and sectors are used to identify a range of key determinants, chosen from previous theoretical and survey research, notably previous population growth, capital availability through housing wealth, professional expertise, firm size structures, urban agglomeration advantages and diseconomies, and growing market demand. Some evidence is found for local "enterprise culture", local government expenditure and Enterprise Agency effects, but not for unemployment-push processes. Policy implications are discussed.

Kelsey, David

TI Induced Preferences and Decision-Making Under Risk and Uncertainty. **AU** Milne, Frank; Kelsey, David.

Khor, Hoe Ee

PD December 1993. **TI** China's Foreign Currency Swap Market. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/1; International Monetary Fund, Washington, DC 20431. **PG** 16. **PR** not available. **JE** F31, O53. **KW** China. Foreign Currency Swaps. Swap Market.

AB This paper describes the operations of the foreign currency swap market in China, reviews and analyzes developments of exchange rates in recent years, and assesses the contribution of the swap market to the economy. It concludes that the swap market is a transitional mechanism that has played an important role in China's economic transformation by promoting exports and facilitating macroeconomic adjustment during periods of economic overheating. Finally, some suggestions are made on ways to improve the functioning of the swap market.

King, Maxwell L.

TI Testing Hildreth-Houck Against Return to Normalcy Random Regression Coefficients. **AU** Brooks, Robert D.; King, Maxwell L.

King, Robert G.

TI Policy, Technology Adoption and Growth. **AU** Easterly, William; King, Robert G.; Levine, Ross; Rebelo, Sergio.

Kinnaman, Thomas C.

TI Household Demand for Garbage and Recycling Collection with the Start of a Price Per Bag. **AU** Fullerton, Don; Kinnaman, Thomas C.

Klein, Michael W.

PD February 1994. **TI** Explaining the Duration of Exchange-Rate Pegs. **AU** Klein, Michael W.; Marion, Nancy P. **AA** Klein: Tufts University and National Bureau of Economic Research. Marion: Dartmouth College. **SR** National Bureau of Economic Research Working Paper: 4651; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $5.00. **JE** E43, E52. **KW** Logit Analysis. Devaluation. Political Cost.

AB This paper is a theoretical and empirical investigation into the duration of exchange-rate pegs. The theoretical model considers a policy-maker who must trade off the economic costs of real exchange-rate misalignment against the political cost of realignment. The optimal time to spend on a peg is derived and factors that influence peg duration are identified. The

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predictions of the model are tested using logit analysis with a data set of exchange-rate pegs for sixteen Latin American countries and Jamaica during the 1957-1991 period. We find that the real exchange rate is a significant determinant of the likelihood of a devaluation. Structural variables, such as the openness of the economy and its geographical trade concentration, also significantly affect the likelihood of a devaluation. Finally, political events that change the political cost of realignment, such as regular and irregular executive transfers, are empirically important determinants of the likelihood of a devaluation.

Klemperer, Paul

TI Auctions vs. Negotiations. **AU** Bulow, Jeremy; Klemperer, Paul.

Kodres, Laura E.

PD May 1994. **TI** The Existence and Impact of Destabilizing Positive Feedback Traders: Evidence From the S&P 500 Index Futures market. **AA** Board of Governors of the Federal Reserve System and University of Michigan. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-9; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 27. **PR** no charge. **JE** G10, G12. **KW** Positive Feedback Investment. Stock Trading Strategies. Trading Strategy.

AB Positive feedback investment is a speculative trading strategy in which individuals buy after price increases and sell after price declines. Theoretical models of this trading strategy have shown that prices can be destabilized. I examine individual accounts in the S&P 500 Index futures contract to detect positive feedback trading. A significant minority of active accounts perform positive feedback strategies more frequently than can be explained by chance. After periods of concentrated positive feedback trading, however, prices do not reverse as theory predicts. Test results of the relation between positive feedback volume and volatility are mixed: positive feedback volume and volatility are positively associated using two different techniques, but not a third technique.

Koen, Vincent

PD January 1994. **TI** Measuring the Transition: A User's View on National Accounts in Russia. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/6; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 15. **PR** not available. **JE** E65, P20, P22, P24, P27. **KW** Russia. National Accounts.

AB As Russia's transition unfolds, the traditional national accounts concepts and reporting mechanisms become increasingly inadequate. As a result, the margin of error associated with basic price and quantity estimates widens substantially. A selection of key measurement and interpretation issues is discussed here, in operational rather than in methodological terms.

Koford, Kenneth

TI A Re-Examination of the Fiorina/Plott and Eavey Voting Experiments: How Much Do Cardinal Payoffs Influence Outcomes? **AU** Grelak, Eric; Koford, Kenneth.

Kokko, Ari

TI Home Country Effects of Foreign Direct Investment: Evidence from Sweden. **AU** Blomstrom, Magnus; Kokko, Ari.

Kole, Linda S.

TI European Monetary Arrangements: Implications for the Dollar, Exchange Rate Variability and Credibility. **AU** Edison, Hali J.; Kole, Linda S.

Konings, Jozef

PD October 1993. **TI** Job Creation and Job Destruction in the U.K. Manufacturing Sector. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 176; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 32. **PR** no charge. **JE** J63. **KW** Gross Job Flows. Panel Data. Business Cycle.

AB This paper uses a panel of 993 U.K. manufacturing companies to analyze a pattern of gross job creation and gross job destruction during the 1970's and early 1980's. At any point in time and even within narrowly defined sectors gross job creation and gross job destruction coexist. Job creation and job destruction are inversely related and gross job reallocation, the sum of the two, is counter-cyclic. Gross job destruction is more variable than gross job creation over the cycle. The idiosyncratic component of gross job flows is substantial. However, it is predominantly aggregate and sectoral shocks which explain the main fraction of the total time variation of gross job flows. We compare the report findings with those of the U.S. manufacturing sector and conclude that although the magnitude of gross job flows is lower in the U.K. the cyclical properties are very similar. Finally, in the light of the reported results, we discuss a number of anomalies of existing theory and point out new theories explaining the observed pattern of job creation and job destruction.

Kortum, Samuel

PD February 1994. **TI** A Model of Research, Patenting, and Productivity Growth. **AA** Boston University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4646; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** $5.00. **JE** D24, J44, O31, O47. **KW** Technological Innovation. Patents. Productivity.

AB I use the aggregate behavior of three indicators of technology (employment of research scientists and engineers, patented inventions, and total factor productivity) to identify a plausible model of endogenous technological change. In the U.S. (as well as in other developed countries), research employment and total factor productivity have both grown, while the rate of patenting has remained relatively flat. One interpretation of these facts is that: (i) patentable inventions are becoming increasingly difficult to discover as the quality of techniques in use increases, (ii) inventions which are patented represent percentage improvements on techniques currently in use, and (iii) the size of the economy is growing, making patents increasingly valuable and justifying increased research efforts devoted to discovering them. This paper presents a general equilibrium search theoretic model of invention which formalizes this view.

Kowalczyk, Carsten

PD September 1992. **TI** Hubs and Spokes, and Free Trade in the Americas. **AU** Kowalczyk, Carsten; Wonnacott, Ronald J. **AA** Kowalczyk: Dartmouth College and National Bureau of Economic Research. Wonnacott: University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9209; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 22. **PR** Canada $5.00; Elsewhere $7.00. **JE** F13, F15. **KW** Free Trade Agreement. NAFTA.

AB In August, 1992, Canada, Mexico and the United States signed a free trade agreement (FTA). Although this agreement is essentially in a trilateral FTA format, full ratification by all three countries is not guaranteed. If Canada were to drop out, the result could be a Mexico-U.S. bilateral FTA, creating a hub-and-spoke system in which the United States as the hub would have one bilateral spoke agreement with Canada (the 1989 Canada-U.S. FTA), and another with Mexico; in other words, two free trade areas overlapping on the United States. We show that the expectation for any spoke - Canada or Mexico - is that its welfare would be less in a hub-and-spoke system. At the same time, if the analysis is limited to the effects of preferential trading, then the preferred access by the U.S. hub to spoke markets likely will lead it to favor a hub-and-spoke system. However, this judgment by the U.S. will be tempered by broader influences, such as the effect of a hub-and-spoke system in generating smaller increases in income in the spoke markets, and hence a smaller increase in U.S. exports; and in generating higher administrative, transportation, and rent-seeking costs.

Kramarz, F.

TI The Hiring Difficulties of French Enterprises: An Empirical Analysis on a Panel of Firms Using Simulation Techniques. **AU** Dabouineau, J. L.; Gacon, C.; Kramarz, F.; Lollivier, S.

TI Parameter of Interest, Nuisance Parameter and Orthogonality Conditions: An Application to Autoregressive Error Component Models. **AU** Crepon, B.; Kramarz, F.; Trognon, A.

PD November 1993. **TI** Dynamic Focal-Points in N-Person Coordination Games. **AA** CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9346; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 23. **PR** no charge. **JE** C72, C73, D83. **KW** Language. Focal Points. Communication.

AB We analyze the emergence of focal points in coordination games when such singularities did not exit before that start of the interaction. We precisely model the rules of the game as well as the language shared by the player before the game in order to show how coordination occurs. Comparing close enough hypotheses on rules and on language, we demonstrate how complex such an analysis can be.

TI The Impact of New Technologies on Wages: Lessons from Matching Panels on Employees and on Their Firms. **AU** Entorf, H.; Kramarz, F.

Krishna, Kala

PD January 1994. **TI** Flexibility: A Partial Ordering. **AU** Krishna, Kala; Thursby, Marie. **AA** Krishna: Penn State University and National Bureau of Economic Research. Thursby: Purdue University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4615; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** $5.00. **JE** F41. **KW** Flexibility to Exogenous Shocks.

AB We use an approach developed by Krishna and Young (1992) to examine the ability of economies to adjust to exogenous shocks. While in general, economies cannot be ranked in terms of their flexibility, we provide a partial ordering for certain types of economies. In particular, properties of the revenue function are used to show that placing restrictions on factor mobility and on production in certain sectors reduces the flexibility of a small open economy with respect to all price, endowment, and technology shocks of small enough magnitude. Since one can think of these restrictions as distortions, we would expect them to reduce the level of GNP in the economy. The insight provided by the analysis of flexibility is that, not only is the level of GNP affected, but also the intrinsic ability of the economy to adjust to shocks is reduced.

Krueger, Alan B.

TI Economic Growth and the Environment. **AU** Grossman, Gene M.; Krueger, Alan B.

Krugman, Paul

PD October 1993. **TI** Integration, Specialization and Adjustment. **AU** Krugman, Paul; Venables, Anthony J. **AA** Krugman: Massachusetts Institute of Technology. Venables: London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 172; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 27. **PR** no charge. **JE** F01, F12, F15, R03. **KW** Industrial Location. Integration. Agglomeration.

AB The paper considers the equilibrium location of two industries in two countries. Both industries are imperfectly competitive and produce goods which are used in final consumption and as intermediates by firms in the same industry. Intermediate usage creates cost and demand linkages between firms and a tendency for agglomeration of each industry. When trade barriers are high the equilibrium involves division of both industries between both locations in order to meet the final demands of consumers. At lower trade barriers agglomeration forces dominate and the equilibrium involves specialization, with each industry concentrated in a single location. Economic integration may induce specialization. The paper studies the simple dynamics of the model and demonstrates that during the adjustment process a sizable proportion of the labor force may suffer lower real wages as relocation of industry occurs, although there are long run gains from integration.

PD January 1994. **TI** Fluctuations, Instability, and Agglomeration. **AA** Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4616; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** R11, R12. **KW** Spatial Dynamics.

AB Recent models in economic geography suggest that there may be very large numbers of equilibrium spatial structures. Simulations suggest, however, that the structures that emerge are surprisingly orderly, and often seem approximately to follow simple rules about the spacing of urban sites. This paper offers an explanation in terms of the process by which the spatial economy diverges away from an even distribution of activity across landscape. It shows that a small divergence of activity away from spatial uniformity, even if it is highly irregular, can be regarded as the sum of a number of simple periodic fluctuations at different spatial "wavelengths"; these fluctuations grow at different rates. There is a particular "preferred wavelength" that grows fastest; provided that the initial distribution of activity across space is flat enough, this preferred wavelength eventually dominates the spatial pattern and becomes the typical distance between cities. The approach suggests that surprisingly simple principles of self-organization may lie beneath the surface of models that appear at first to yield hopelessly complex possibilities.

Kumar, Manmohan S.

TI Money Demand, Bank Credit, and Economic Performance in Former Socialist Economies. **AU** Calvo, Guillermo A.; Kumar, Manmohan S.

TI Emerging Equity Markets: Growth, Benefits, and Policy Concerns. **AU** Feldman, Robert A.; Kumar, Manmohan S.

Kusko, Andrea L.

PD February 1994. **TI** Employee Decisions with Respect to 401(k) Plans: Evidence From Individual-Level Data. **AU** Kusko, Andrea L.; Poterba, James M.; Wilcox, David W. **AA** Kusko and Wilcox: Board of Governors of the Federal Reserve. Poterba: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4635; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** $5.00. **JE** J32, L60. **KW** 401(k) Plans. Pension Plans. Employer-Provided.

AB 401(k) plans have been the most rapidly growing type of employer-provided pension plan during the last decade. This paper utilizes employee-level data from the 401(k) plan at a medium-sized U.S. manufacturing firm to analyze the participation and contribution decisions of workers eligible for this plan. Our analysis reveals two important features of 401(k) participant behavior. First, contribution decisions of eligible employees are relatively insensitive to the rate of employer matching on worker contributions. Most employees maintain the same participation status and contribution rate year after year, despite substantial changes in the employer's match rate at the firm we study. This suggests that employer matching may not be a critical factor in explaining the growth of 401(k) plans. Second, we find that institutional constraints on contributions, imposed either by the employer or by the IRS, are an extremely important influence on contributor behavior. This finding must be recognized in any analysis of how changes in 401(k) plan provisions are likely to affect contribution levels.

Lachman, Desmond

PD January 1994. **TI** Budget Deficits and the Public Debt in Sweden - The Case for Fiscal Consolidation. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/2; International Monetary Fund, Washington, DC 20431. **PG** 21. **PR** not available. **JE** E62, F31, H30, H60. **KW** Sweden. Deficits. Debt. Budget Deficits. Public Debt.

AB Since the late 1980's, there has been an abrupt turnaround in Sweden's public finances. The present paper makes the case for the very early adoption of a policy of medium-term fiscal consolidation in Sweden, notwithstanding the presently relatively depressed state of the Swedish economy. It does so by examining the reasons why large public deficits and the buildup of public debt might be detrimental to future economic performance; by reviewing how the maintenance of large deficits might undermine credibility in markets; and by looking at the experience of a number of countries that have undertaken successful programs of fiscal consolidation.

Laidler, David E. W.

PD January 1993. **TI** Hawtrey, Harvard, and the Origins of the Chicago Tradition. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9302; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 33. **PR** Canada $7.00; Elsewhere $9.00. **JE** B22, B31. **KW** Monetary Economics. History of Thought. Monetarism.

AB The existence of a "Chicago Tradition" in monetary economics was first brought to general attention by Milton Friedman (1956), when he claimed that his version of the quantity theory of money derived from a doctrine which had been under continuous development at the University of Chicago since the 1930's. Thomas Humphrey (1971) documented the appearance of ideas closely related to this Chicago tradition in the writings of such non-Chicagoans as Carl Snyder, Lauchlin Currie, and later Clark Warburton. His paper, together with Patinkin's (1973) comment on it, left the overall impression that the Chicago tradition was less the product of a single department than it was a manifestation of widely influential and essentially Fisherian approach to monetary economics. This paper proposes a rather different account of the matter. Specifically, and without denying the existence of a pervasive Fisherian influence, it argues that two of the three distinctive characteristics which Friedman has attributed to 1930's Chicago monetary economics also distinguish the analysis of such Harvard economists as Allyn Young and Lauchlin Currie from the broader tradition of American quantity theoretic analysis. It argues further that those characteristics mark the writings of the British economist Ralph Hawtrey, who, from 1913 onwards, developed a monetary theory of the cycle which provided a far richer description of the phenomenon as a "dance of the dollar" than Fisher ever produced.

Laixuthai, Adit

TI Do Youths Substitute Alcohol and Marijuana? Some Econometric Evidence. **AU** Chaloupka, Frank J.; Laixuthai, Adit.

Lane, Timothy

TI ERM Money Supplies and the Transition to EMU. **AU** Cassard, Marcel; Lane, Timothy; Masson, Paul R.

TI Shortages Under Free Prices: The Case of Ukraine in 1992. **AU** Sundakov, Alexander; Ossowski, Rolando; Lane, Timothy.

Lang, Larry

PD February 1994. **TI** Asset Sales, Firm Performance, and the Agency Costs of Managerial Discretion. **AU** Lang, Larry; Stulz, Rene M.; Poulsen, Annette. **AA** Lang: New York University. Stulz: Ohio State University and National Bureau of Economic Research. Poulsen: University of Georgia. **SR** National Bureau of Economic Research Working Paper: 4654; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** $5.00. **JE** G30, G32, D21. **KW** Leverage. Stock Market. Discounting.

AB We argue that management sells assets when doing so provides the cheapest funds to pursue its objectives rather than for operating efficiency reasons alone. This hypothesis suggests that (1) firms selling assets have high leverage and/or poor performance, (2) a successful asset sale is good news and (3) the stock market discounts asset sale proceeds retained by the selling firm. In support of this hypothesis, we find that the typical firm in our sample performs poorly before the sale and that the average stock-price reaction to asset sales is positive only when the proceeds are paid out.

Lapham, Beverly J.

TI Monopolistic Competition, Increasing Returns, and the Effects of Government Spending. **AU** Devereux, Michael B.; Head, Allen C.; Lapham, Beverly J.

Leahy, John

TI The Economics of Adjustment. **AU** Caplin, Andrew; Leahy, John.

Leahy, Michael P.

PD June 1994. **TI** *The Dollar as an Official Reserve Currency Under EMU.* **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 474; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 44. **PR** no charge. **JE** E58, F33, F36. **KW** Reserves. Central Banks. EMU. Currency Composition.

AB This paper analyzes official reserve-holding behavior in the EU countries in an attempt to assess the effect EMU might have on official holdings of dollar reserves. A wide range of projections are presented for the effect of EMU on the overall demand for reserves, some based on earlier research results and some on new estimates. In the estimation and simulation of the behavior of EU countries in the last half of the 1980's, the contributions of country-specific factors appear to swamp the systematic components that had been isolated in earlier research. Earlier research results are also used to assess the effect of EMU on the currency composition of reserves. It is argued that official dollar holdings could decline on the order of 35 percent or more from current dollar holdings, although the range of uncertainty is quite large.

Lee, In Ho

PD November 1993. **TI** Market Crashes and Informational Avalanches. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9321; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 34. **PR** no charge. **JE** D83, D84, G14. **KW** Market Crashes. Informational Cascades. Informational Avalanches.

AB This paper explains market booms and crashes as a failure in information aggregation. Discreteness in the traders' strategy space may prevent many traders with bad news from revealing their private information as such if they trade after many good news traders. The resulting unjustifiably high price can then be shattered by a small surprise, if a trader receives sufficiently bad news to induce a distinguishable trade order. Subsequently many traders with bad news who had previously been hidden in the market unwind their position all at once and a market crash follows. The paper illustrates the dynamics of market crashes through the following four phases: 1) boom, 2) euphoria, 3) trigger, and 4) panic. Each phase is characterized by sets of public beliefs prevailing during the phase of the sequence of private signals underlying trade orders made in each phase. The major theorem establishes that there exists a non-empty set of parameters which generate the price path of a market crash. An example is constructed to show how the sequence of private signals satisfying the characterization of these dynamics generates the price path of a market crash.

Lee, Jong-Wha

PD July 1994. **TI** Trade Barriers and Trade Flows Across Countries and Industries. **AU** Lee, Jong-Wha; Swagel, Phillip. **AA** Lee: Korea University and National Bureau of Economic Research. Swagel: Northwestern University. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 476; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 32. **PR** no charge. **JE** F13. **KW** Trade Protection. Non-Tariff Barriers. Political Economy.

AB We use disaggregated data on trade flow, production, and trade barriers for 41 countries in 1988 to examine the political and economic determinants of non-tariff barriers, as well as the impact of protection (both tariff and non-tariff) on trade flows. We use an econometric framework that allows for the simultaneous determination of trade barriers and trade flows. Our results are consistent with political-economy theories of the determinants of protection: even after accounting for industry-specific factors, nations tend to protect industries that are weak, in decline, and threatened by import competition. Countries also give more protection to large industries; these might be thought of as politically important. Nations use tariffs, non-tariff barriers, and exchange rate controls as complementary instruments of protection.

Levine, Ross

TI Policy, Technology Adoption and Growth. **AU** Easterly, William; King, Robert G.; Levine, Ross; Rebelo, Sergio.

Liang, J. Nellie

TI Selection in Failed Bank Auction Prices: An Econometric Model of FDIC Resolutions. **AU** Berkovece, James A.; Liang, J. Nellie.

Lipow, Jonathan

TI Real and Ideal Water Rights. **AU** Berck, Peter; Lipow, Jonathan.

TI Estimation in a Long-Run Short-Run Model. **AU** Berck, Peter; Lipow, Jonathan.

TI Real and Ideal Water Rights: The Prospects for Water-Rights Reform in Israel, Gaza, and the West Bank. **AU** Berck, Peter; Lipow, Jonathan.

Lipsey, Robert E.

PD March 1994. **TI** Quality Change and Other Influences on Measures of Export Prices of Manufactured Goods and the Terms of Trade Between Primary Products and Manufactures. **AA** Queen's College and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4671; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** F10, F41. **KW** Japan. Asia.

AB Measures of long term trends in world export prices of manufactured goods and in the terms of trade between manufactured goods and primary products are sensitive to the choice of country weights and of base periods and, most important of all, the treatment of quality change. Later base periods and higher weights for rapidly growing exporters, such as Japan or the newly industrializing East Asian countries, are associated with lower estimates of the long-term increase in prices. Conservative estimates of the bias in the most commonly used measure of export prices of manufactured products, the United Nations export unit value index for manufactures, suggest that this measure overstates the long-run rise in manufactured goods prices by more than half of one percent per year, probably one percent or more. If this is the case, there has been no long term trend toward rising prices of manufactures relative to primary products. However, no conceivable estimate of bias in measures of manufactured goods prices would reverse the picture of declining relative primary product prices during the 1980's.

PD March 1994. **TI** Outward Direct Investment and the U.S. Economy. **AA** Queen College, CUNY and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4691; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 38. **PR** $5.00. **JE** F21, F23. **KW** Multinational. Foreign Markets.

AB Investment in production outside the United States is a method by which U.S. firms raise their shares in foreign markets and defend them against foreign rivals from the host countries and from other countries. The investing firms are exploiting their firm-specific assets such as proprietary technologies, patents, or skills in advertising or marketing, and the opportunity to produce abroad raises the value of these assets and encourages firms' investment in them by extending the range of markets and the length of time over which they can be exploited. Overseas production has contributed to the ability of American multinationals to retain world market shares in the face of the long-term decline in the share of the U.S. as a country and short-term changes such as exchange rate fluctuations. It has performed the same functions for Swedish firms and, more recently, for Japanese firms. Within U.S. multinationals, those with higher shares of their production overseas have higher employment at home relative to home production. Foreign production appears to require larger numbers of employees in headquarters activities such as R&D and supervision.

Liu, Jianmin

PD April 1993. **TI** Can Futures Trading Play a Role in China's Land Allocation and Food Security Policy? **AU** Liu, Jianmin; Rausser, Gordon C. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 651; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 24. **PR** $9.25. **JE** G13, Q18. **KW** Food Policy. Agricultural Production. Futures Trading.

AB China is the world's largest producer and consumer of cereal grains. As with many other developing countries, providing food security to its 1.13 billion people is of overriding importance to China. In this setting, a model is developed to analyze whether futures trading will enhance China's pursuit of food security. In this model, the government faces resource constraint (fixed amount of land) for agricultural production, and is presumed to achieve an exogenously specified target level of food consumption. The optimal hedging and production decisions are derived simultaneously, subject to the food security objective and the land constraint. The conceptual model shows that participating in futures trading can stabilize the country's optimal land allocation while the empirical analysis shows that, in the case of China, the optimal land allocation for agricultural production is quite different from its current levels.

Lloyd-Ellis, Huw

TI Enterprise, Inequality and Economic Development. **AU** Bernhardt, Dan; Lloyd-Ellis, Huw.

Lolivier, S.

TI Individual Heterogeneity in Duration Models with Segmentation. **AU** Cases, C.; Lolivier, S.

Lollivier, S.

TI The Hiring Difficulties of French Enterprises: An Empirical Analysis on a Panel of Firms Using Simulation Techniques. **AU** Dabouineau, J. L.; Gacon, C.; Kramarz, F.; Lollivier, S.

PD July 1993. **TI** L'evaluation du Marche du Travail dans les Annees 1980. **AA** CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9336; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 9. **PR** no charge. **JE** J64, C41. **KW** Mobility. Unemployment. Duration Analysis.

AB The paper contains on estimation of transition intensities on the French Labor market between 1981 and 1989. It generalizes the results of Fougere and Kamionka (1992) computed between 1986 and 1988. The estimation of the continuous markov process is made on a four state labor market (inactivity, unemployment, marginal jobs and regular jobs). Young people, women and individuals without formation have a higher labor instability. This instability has increased during the eighties in particular for young people. The paper is written in French.

PD January 1994. **TI** Le Comportement d'Activite des Femmes Quelques Resultats sur Donnees de Panel. **AA** CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9408; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 7. **PR** no charge. **JE** C23, J16, J22. **KW** Female Labor Supply. Labor Supply. Time Allocation.

AB This paper presents estimates of female labor supply between 1981 and 1989. Data come from longitudinal samples of French Labor Force Surveys. They allow to take into account unobserved individual heterogeneity. The latter explains a large part of total variance of residuals in a probit model taking into account usual sociodemographic variables. These variables have a similar influence as in other studies on the same topic. Moreover, macroeconomic tensions on the labor market have a small influence on female behavior. The paper is written in French.

Long, William F.

PD November 1993. **TI** The Financial Performance of Whole Company LBO's. **AU** Long, William F.; Ravenscraft, David J. **AA** Long: Business Performance Research Associates. Ravenscraft: University of North Carolina. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: CES93-16; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 26. **PR** no charge. **JE** G30, G34, L10, L60, L70, L80, L90. **KW** LBO. Leveraged Buyout. Financial Performance. Debt.

AB Using the previously untapped Census quarterly Financial Report (QFR) file, we explored the financial performance of a large unbiased sample of 209 leveraged buyouts (LBO's) and 48 going private transactions occurring between 1978 and 1989. Our principal findings are: First, we confirm previous work showing that LBO's substantially increase operating performance and reduce taxes. Second, we find that the operating performance gains are sustained for three years. However, there is a significant drop in performance in the fourth and fifth years. Performance in these years is not significantly above the pre-LBO level. Third, total debt to assets displays only a slight insignificant downward trend. Thus, high debt remains after the drop in performance. Fourth, we find evidence that the performance gains decline in the mid- to late 1980's, with the exception of 1989. Fifth, the data suggest that LBO's target typical firms. The only significant pre-LBO firm characteristic was lower bank debt relative to nonbank debt. Sixth, we identify a number of factors that differentiate LBO performance. Performance tends to be higher when pre-LBO performance is low and the firm is classified as a large R&D performer. Conversely, management buyouts and buyouts involving extensive restructuring did not outperform other buyouts. Finally, we observe a clear linkage between debt and performance, since nonleveraging going-private deals have significantly lower performance than LBO's.

Losada, Fernando J.

TI Fixed Exchange Rates, Inflation and Macroeconomic Discipline. **AU** Edwards, Sebastian; Losada, Fernando J.

Loungani, Prakash

PD June 1994. **TI** The Effect of Changes in Reserve Requirements on Investment and GNP. **AU** Loungani, Prakash; Rush, Mark. **AA** Loungani: Board of Governors of the Federal Reserve System. Rush: University of Florida. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 471; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 30. **PR** no charge. **JE** E52, E58, E32. **KW** Monetary Policy. Monetary Transmission. Credit Channel. Reserve Requirements.

AB This paper provides evidence on the importance of the credit channel in the transmission of monetary policy. Changes in reserve requirements are used to measure "credit shocks." Reserve requirement changes are often made for regulatory reasons, and hence provide a more exogenous measure of credit shocks than the measure used in previous tests. To distinguish between the "money" and "credit" channels, the significance of the reserve requirements variable is studied in an empirical model that includes other monetary aggregates (either the monetary base or M1). We find that an increase in reserve requirements lowers aggregate investments, real GNP and commercial and industrial (C&I) loans made by banks.

Lumme, A.

PD September 1993. **TI** New, Technology-Based Companies in Cambridge in an International Perspective. **AU** Lumme, A.; Kauranen, Ilkka; Autio, Erkko; Kaila, Martti M. **AA** Helsinki University of Technology. **SR** University of Cambridge Small Business Research Centre Working Papers: 35; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 109. **PR** $10.00 (L5.00); checks payable to University of Cambridge. **JE** L63, G32, O32. **KW** Technology Transfer.

AB This study focuses on new, technology-based companies in Cambridge in an international perspective. It compares the basic characteristics, founder, start-up phase, growth and development, financing, technology transfer, and internationalization of new, technology-based companies emerging from universities and research institutes in Cambridge, UK and in Finland. The study applies a statistical approach and the findings are based on interviews with founders of 45 Cambridge companies and 85 Finnish ones. The faster growth of the Cambridge companies is partly attributable to the loan-based capital structure of the Finnish companies, which suffer from a lack of equity capital accumulation. For healthy growth it is also essential for new, technology-based companies to go international at an early stage of development. In both the UK and Finland, new, technology-based companies were important agents in transferring and commercializing technological knowledge from their incubating university or research institute.

Lumsdaine, Robin L.

PD January 1994. **TI** Retirement Incentives: The Interaction Between Employer-Provided Pensions, Social Security, and Retiree Health Benefits. **AU** Lumsdaine, Robin L.; Stock, James H.; Wise, David A. **AA** Lumsdaine: Princeton University and National Bureau of Economic Research. Stock and Wise: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4613; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** H55, J21. **KW** Retirement Benefits. Social Security. Employer Pensions.

AB Proposed changes in the U.S. Social Security provisions include increasing the normal retirement age from 65 to 67 and changing from 3% to 8% the increase in benefits for each year that retirement is delayed after normal retirement. The paper considers the interaction between these changes and the provisions of employer-provided pension plans. For persons with an employer-provided defined benefit plan, the conclusion is that the Social Security changes will have little effect on labor force participation, but that changes in the firm plan such as increasing the early retirement age would have very large effects on labor force participation.

Lynch, Lori

PD February 1994. **TI** Do Women and Minorities Earn Less Due to Occupational Segregation, Lower Wages, or Fewer Hours? **AU** Lynch, Lori; Perloff, Jeffrey M. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 702; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 18. **PR** $8.75. **JE** J15, J16, J22, J31, J71. **KW** Labor Supply. Wage Discrimination. Earnings Gap.

AB Using consistently estimated occupational, wage, and hours equations, we calculate earnings differentials by gender, race, and ethnicity. For example, if the market treated women like men, the average women would have earned $133 more per week so that American women would have earned $338 billion more per year. We decompose the earnings differential into wage, hours, and occupational effects. Occupational segregation explains little of the earnings differential for women, but roughly a fifth of the differential for black and Hispanic men. For all groups, within-occupation wage discrimination is responsible for most of the earnings differential.

Lyon, Andrew B.

TI Non-Leaky Buckets: Optimal Redistributive Taxation and Agency Costs. **AU** Hoff, Karla; Lyon, Andrew B.

Lyons, Robert F.

PD April 1994. **TI** Disruption and Continuity in Bulgaria's Agrarian Reform. **AU** Lyons, Robert F.; Rausser, Gordon C.; Simon, Leo K. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 704; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 32. **PR** $9.00. **JE** Q15, O52, O13. **KW** Economic Transition. Land Reform. Agricultural Sector.

AB The Bulgarian land reform process is burdened by a fundamental tension between disruption and continuity. This tension arises from the dual roles played by the nomenklatura (the leaders of the old order) in the transition to a market economy. While the nomenklatura have the potential to provide the agricultural sector with indispensable human capital, they also have the potential to extract rents from the sector, thus undermining its competitiveness. Both the productivity of nomenklatura capital and their capacity to extract rents are diminished to the extent that the reform disrupts the established agrarian order. Too much disruption degrades economic productivity, too much continuity skews the distribution of political power in favor of the nomenklatura, which may undermine the competitiveness of the nascent free market institutions. This chapter develops a formal political-economic model of this tradeoff. The model challenges the conventional wisdom that decoupling politics from economics will improve economic performance.

Machin, Stephen

TI The Effect of Minimum Wages on Employment: Theory and Evidence from Britain. **AU** Dickens, Richard; Machin, Stephen; Manning, Alan.

Mack, Phillip R.

TI Avoiding Runs in Money Market Mutual Funds: Have Regulatory Reforms Reduced the Potential for a Crash? **AU** Collins, Sean S.; Mack, Phillip R.

MacKie-Mason, Jeffrey K.

TI Why Is There Corporate Taxation in a Small Open Economy? The Role of Transfer Pricing and Income Shifting. **AU** Gordon, Roger; MacKie-Mason, Jeffrey K.

MacKinnon, James G.

TI Graphical Methods for Investigating the Size and Power of Hypothesis Tests. **AU** Davidson, Russell; MacKinnon, James G.

MacLeod, W. Bentley

PD November 1993. **TI** Motivation, Markets, and Dual Economies. **AU** MacLeod, W. Bentley; Malcomson, James M. **AA** MacLeod: University de Montreal. Malcomson: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9319; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 40. **PR** no charge. **JE** D82, J41, O15. **KW** Dual Economy. Incomplete Contracts. Migration. Wage Differentials.

AB In an anonymous labor market with performance unverifiable in court, there must exist a surplus from forming matches. In an efficient equilibrium, that surplus must go to the long side of the market. With two sectors, a primary with limited high productivity jobs and a secondary with many low productivity jobs, primary sector employees then receive higher utility than secondary sector employees despite free migration and the same contracting difficulties affecting both sectors. The model thus generates a dual economy purely from characteristics emphasized in the development literature. Moreover, a spurt of primary sector (urban) growth results in a short-run fall in wages and increased migration that increases urban unemployment and temporarily reduces output, though in the long-run unemployment is unchanged and average utility of workers increases. More generally, a short run fall in wages results from any rapid structural change that involves substantial intersectoral shifts in employment. Interindustry wage differentials in the model arise because of differences in the cost of having vacancies in a way that relates Ford's $5.00 day to the change to assembly line working, not because of the reasons typically given in the incomplete contracts and efficiency wage literatures.

PD April 1994. **TI** Contract Bargaining With Symmetric Information. **AU** MacLeod, W. Bentley; Malcomson, James M. **AA** MacLeod: University de Montreal. Malcomson: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9409; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 36. **PR** no charge. **JE** C78, K12, L14. **KW** Contracts. Bargaining.

AB This paper reviews a recent literature that extends the Rubinstein/Stahl bargaining model to the case of contract bargaining. Theoretical issues such as the appropriate game form and existence and uniqueness of equilibria are discussed. The paper finishes with a brief overview of some applications of the framework.

PD May 1994. TI Turnover Costs, Efficiency Wages and Cycles. AU MacLeod, W. Bentley; Malcomson, James M. AA MacLeod: Universite de Montreal. Malcomson: University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 9410; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. PG 22. PR no charge. JE D23, D82, E31, J41. KW Turnover Costs. General Investments. Efficiency Wages. Motivation.

AB This paper studies the implications of our recent work on two labor market imperfections for the cyclical properties of wages and employment. One of these imperfections is turnover costs. We explore the implications of the interaction of turnover costs with investment decisions for the form of wage contracts and hence for the cyclical properties of wages. The other imperfection is the difficulty of verifying employee performance. We consider the implications of this for the payment of efficiency wages and the consequence for the cyclical properties of wages and employment.

Madrian, Brigitte C.

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

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

Mahidhara, R.

TI The Choice of Input-Output Table Embedded in Regional Econometric Input-Output Models. AU Israilevich, P. R.; Mahidhara, R.; Hewings, G. J. D.

Malcomson, James M.

TI Motivation, Markets, and Dual Economies. AU MacLeod, W. Bentley; Malcomson, James M.

TI Contract Bargaining With Symmetric Information. AU MacLeod, W. Bentley; Malcomson, James M.

TI Turnover Costs, Efficiency Wages and Cycles. AU MacLeod, W. Bentley; Malcomson, James M.

Maniquet, F.

TI Cooperative Production: A Comparison of Individual Rationality Constraints. AU Fleurbaey, M.; Maniquet, F.

Mankiw, N. Gregory

TI A Sticky-Price Manifesto. AU Ball, Laurence; Mankiw, N. Gregory.

Manning, Alan

TI The Effect of Minimum Wages on Employment: Theory and Evidence from Britain. AU Dickens, Richard; Machin, Stephen; Manning, Alan.

Marginson, Paul

TI Does the Regulatory System Matter?: A Comparison of Workplace Industrial Relations in Australia and Britain. AU Whitfield, Keith; Marginson, Paul; Brown, William.

Marion, Nancy P.

TI Explaining the Duration of Exchange-Rate Pegs. AU Klein, Michael W.; Marion, Nancy P.

Marquez, Jaime

TI International Economic Implications of the End of the Soviet Union. AU Helkie, William L.; Howard, David H.; Marquez, Jaime.

PD July 1994. TI The Constancy of Illusions or the Illusion of Constancies: Income and Price Elasticities for U.S. Imports, 1890-1992. AA Board of governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 475; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 36. PR no charge. JE F40, C50, N70. KW U. S. Imports. Rotterdam Model. Almost Ideal Model. Elasticity Estimation.

AB Virtually all we know about the behavior of U.S. imports rests on studies estimating income and price elasticities with postwar data. But anyone examining the evolution of U.S. trade cannot avoid asking whether the postwar period provides enough information to characterize that behavior. From 1890 to 1940, the United States became an increasingly closed economy and experienced the most pronounced fluctuations in income and prices of this century. Is our current understanding of the behavior of U.S. imports consistent with those features of the U.S. economy? Being consistent with the distant past might not appear as relevant for forecasting, but the literature ignoring that past offers a range of elasticity estimates wide enough to suggest that the role of income and prices in determining imports is not known with any precision. This paper offers the first analysis of that role using data since 1890. Estimating the elasticities of the most popular model in the literature with 1890-1992 data, I find that income and prices do not affect imports whereas the opposite conclusion arises with postwar data. The difference in results stems from differences in the time-series properties of the data in the two samples. As an alternative, I consider several models consistent with both optimization and the time-series properties of the data. These models predict substantial secular changes in income and price elasticities and confirm the importance of optimization for characterizing the behavior of U.S. imports. What is new about the results is that only through optimization can one recognize the implications of the evolution of U.S. trade for estimating elasticities.

Marrese, Michael

PD February 1994. TI An Incomes Policy for Russia? AA International Monetary Fund. SR International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/4; International Monetary Fund, Washington, DC 20431. PG 20. PR not available. JE E64. KW Russia Incomes Policy. Income Policy. Russia.

AB Russian authorities have implemented penalties on excess wages which have been ineffective in restraining overall wage growth and in stimulating state enterprises to behave more efficiently. Assuming monetary and fiscal policy aimed at reducing inflation to low levels, this paper examines the conditions under which incomes policy can be useful and how incomes policy, if introduced, should be designed. Any possible incomes policy for Russia should be temporary, applicable only to state enterprises, include prohibitive penalty tax rates and tripartite bargaining, allow revision of excess wage norms, and focus directly on managerial compensation packages. However, practical considerations suggest that introducing incomes policy in Russia should be viewed with considerable caution.

Marshall, David A.

TI The Implications of First-Order Risk Aversion For Asset Market Risk Premiums. **AU** Bekaert, Geert; Hodrick, Robert J.; Marshall, David A.

Marshall, John M.

TI Who Should go to College and How Much Should They Pay? **AU** Garratt, Rod; Marshall, John M.

Martins, Eduardo

PD August 1993. **TI** Construction of Regional Input-Output Tables From Establishment-Level Microdata: Illinois, 1982. **AA** University of Illinois and U.S. Bureau of the Census. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: CES93-12; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 61. **PR** no charge. **JE** C67, R00, R32. **KW** Input-Output. Secondary Production. Regional Economics.

AB This paper presents a new method for use in the construction of hybrid regional input-output tables, based primarily on individual returns from the Census of Manufactures. Using this method, input-output tables can be completed at a fraction of the cost and time involved in the completion of a full survey table. Special attention is paid to secondary production, a problem often ignored by input-output analysts. A new method to handle secondary production is presented. The method reallocates the amount of secondary production and its associated inputs, on an establishment basis, based on the assumption that the input structure for any given commodity is determined not by the industry in which the commodity was produced, but by the commodity itself--the commodity-based technology assumption. A biproportional adjustment technique is used to perform the reallocation.

Massilia, Marzia Raybaudi

PD March 1994. **TI** A Note on FDI and Exports as Entry Barriers. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9404; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 20. **PR** no charge. **JE** F23, L10, F12. **KW** Multinational Firms. Market Structure. Firm Strategy. Market Performance.

AB This paper proposes an extension of two studies by Horstmann and Markusen (1987) and Smith (1987). Both these papers explain foreign direct investment in terms of strategic entry deterrence moves exercised by leading international firms against potential entrants in foreign markets. In particular, by ruling out the leading firm's home market conditions in the determination of its international production choices and given some assumptions on the level of demand in the host country, they both reach the result that the leading firm will always preempt entry by local competitors. The extension considered here endogenizes home market conditions by assuming the existence of economies of scale at the level of production. We find that, once the leading firm takes into account the variation of its profits in the home market when choosing its internationalization strategy, equilibria and where entry by local competitors is accommodated or where exporting constitute an entry barrier also emerge.

Masson, Paul R.

TI ERM Money Supplies and the Transition to EMU. **AU** Cassard, Marcel; Lane, Timothy; Masson, Paul R.

Mattey, Joe

TI The Effects of General Inflation and Idiosyncratic Cost Shocks on Within-Commodity Price Dispersion: Evidence From Microdata. **AU** Beaulieu, J. Joseph; Mattey, Joe.

Mayadunne, Geetha

PD November 1993. **TI** An Empirical Investigation of Shock Persistence in Economic Time Series. **AU** Mayadunne, Geetha; Evans, Merran; Inder, Brett. **AA** Monash University. **SR** Monash Department of Econometrics Research Working Paper: 18/93; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 17. **PR** no charge. **JE** C22. **KW** Persistence. Unit Roots. Macroeconomic Time Series.

AB Whether or not shocks persist has important implications in economics. An empirical study investigates this issue for key Australian and U.S. macroeconomic time series. The existence of persistence is investigated by unit root tests and its magnitude estimated by recently proposed techniques. Results from these different approaches are compared.

Mayer, Christopher, J.

TI Equity and Time to Sale in the Real Estate Market. **AU** Genesove, David; Mayer, Christopher, J.

McCalla, Sandra

TI The Impact of Prenatal Exposure to Cocaine on Newborn Costs and Length of Stay. **AU** Joyce, Theodore; Racine, Andrew D.; McCalla, Sandra; Wehbeh, Hassan.

McCallum, Bennett T.

PD April 1994. **TI** Monetary Policy Rules and Financial Stability. **AA** McCallum: Carnegie-Mellon University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4692; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** $5.00. **JE** E47, E52, E61. **KW** Central Bank. Interest Rates. Inflation.

AB This paper investigates empirically the possibility that a central bank could adhere to a macro-oriented monetary policy rule while also providing lender-of-last-resort services to the financial system. The method considered involves smoothing week-to-week movements of an interest rate instrument so as to achieve quarterly-average intermediate targets for the monetary base, with these specified so as to keep aggregate nominal spending growing steadily at a noninflationary rate. Simulations utilizing weekly U.S. data are conducted with a system consisting of a policy rule for the federal funds rate--one designed to hit monetary base targets obtained from a quarterly macroeconomic rule--and an empirically-based model of the response of base growth to funds rate movements. Results for the periods 1974-1979 and 1988-1991 suggest that such a procedure could succeed in reconciling macroeconomic goals with the provision of lender-of-last-resort services.

McCormick, Barry

TI Discrimination and Open Unemployment in a Segmented Labor Market. **AU** Gottfries, Nils; McCormick, Barry;

TI Discrimination and Open Unemployment in a Segmented Labor Market. **AU** Gottfries, Nils; McCormick, Barry;

McFadden, Daniel

TI The Impact of Demographics on Housing and Non-Housing Wealth in the United States. **AU** Hoynes, Hilary Williamson; McFadden, Daniel.

McGarry, Kathleen

PD January 1994. **TI** Transfer Behavior: Measurement and the Redistribution of Resources Within the Family. **AU** McGarry, Kathleen; Schoeni, Robert F. **AA** McGarry: University of California, Los Angeles and National Bureau of Economic Research. Schoeni: Rand Corporation. **SR** National Bureau of Economic Research Working Paper: 4607; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** D31. **KW** Intergenerationl Transfers.

AB Recent work by a number of economists has opened a debate about the role played by intergenerational tranfers. Using the new Health and Retirement Survey (HRS), we are better able to address the issues involved. Contrary to the current literature on bequests, we do not find that parents give transfers equally to all children. Rather, we find that in the case of inter vivos transfers, respondents give greater financial assistance to their less well-off children relative to their children with higher incomes. Financial transfers to elderly parents are also found to be negatively related to the (potential) recipient's income. These results hold both for the incidence of transfers and for the amounts. Additionally, we allow for unobserved differences across families by estimating fixed effect models and find our results to be robust to these specifications. Thus we fail to reject altruism as a possible motivation for transfers. A comparison of the HRS tranfer data to other survey data demonstrates that the HRS is potentially quite useful for research on transfer behavior.

McGuckin, Robert H.

PD November 1993. **TI** On Productivity and Plant Ownership Change: New Evidence From the LRD. **AU** McGuckin, Robert H.; Nguyen, Sang V. **AA** U.S. Bureau of Census. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: CES93-15; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 26. **PR** no charge. **JE** L10, L60, J24. **KW** Plant Ownership Change, Labor Productivity. Plant Closing.

AB This paper investigates the questions of what type of establishment experiences ownership change, and how the transferred properties perform after acquisition. Are they the profitable operations suggested by Ravenscraft and Scherer (1986), or the poorly operating ones found by Lichtenberg and Siegel (1992)? Is the primary motive of ownership change the rehabilitation of low productivity plants as suggested by Lichtenberg and Siegel? Our empirical work is based on an unbalanced panel of 28,294 plants taken from the U.S. Bureau of the Census' Longitudinal Research Database (LRD). The data set provides complete coverage of the food manufacturing industry (SIC 20) for the period 1977-1987. Our principle findings are that (1) ownership change is generally associated with the transfer of plants with above average productivity, however, large plants, empirically, those with more than 200 employees, are more likely to be purchased than closed when they are performing poorly; and (2) transferred plants experience improvement in productivity performance following the ownership change.

Mengersen, K. L.

PD 1993. **TI** Testing for Mixtures: A Bayesian Entropic Approach. **AU** Mengersen, K. L.; Robert, C. P. **AA** Mengersen: Colorado State University. Robert: Universite de Rouen and CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9340; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 24. **PR** no charge. **JE** C10, C11. **KW** Mixture Modeling. Homogeneity Testing. Cluster Analysis.

AB The determination of the number of components in a mixture of parametrized distributions has important bearing in homogeneity testing, cluster analysis and mixture modeling, among other applications. In this paper, we take a first step in this direction by proposing a method of testing about the presence of a mixture in a normal setup. The test is based on a Kullback-Leibler representation of the hypothesis and a derivation using the Gibbs sampler of the posterior probability that this distance is less than a given threshold. Due to a new parameterization of the mixture model, we are able to reduce the Bayesian prior input to the choice of the above threshold. Our approach is illustrated by a Monte-Carlo study and a character recognition example.

Metcalf, Gilbert E.

PD January 1994. **TI** Lifecycle vs. Annual Perspectives on the Incidence of a Value Added Tax. **AA** Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4619; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 17. **PR** $5.00. **JE** E62, H22, H24. **KW** Value Added Tax.

AB This paper analyzes the steady state distribution of tax burdens of a Value Added Tax (VAT) in the United States using a lifetime perspective. In contrast to an annual snapshot perspective, I find that a VAT on total expenditures would be proportional over the lifetime. Various modifications to the VAT (zero rating necessities or giving lump sum household rebates) would increase the progressivity of the tax substantially. However, the progressivity comes at the cost of substantial tax revenue.

Milesi-Ferretti, Gian Maria

TI On the Political Sustainability of Economic Reform. **AU** Asilis, Carlos M.; Milesi-Ferretti, Gian Maria.

Milne, Frank

PD February 1994. **TI** Induced Preferences and Decision-Making Under Risk and Uncertainty. **AU** Milne, Frank; Kelsey, David. **AA** Milne: Queen's University. Kelsey: University of Birmingham. **SR** Queen's Institute for Economic Research Discussion Paper: 897; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 23. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** D81. **KW** Uncertainty Aversion. Induced

Preferences.
AB In this paper we suggest a new interpretation of non-additive probabilities. We study a decision-maker who follows the Savage axioms. We show the if (s)he is able to take unobservable actions which influence the probabilities of outcomes then it can appear to an outsider as if his/her subjective probabilities are non-additive. We make a related analysis of models with objective probabilities and show that the induced preferences can have the rank dependent expected utility form. Implications for multi-period decisions are explored. We show that such preferences are not vulnerable to "Dutch books".

Mishkin, Frederic S.

PD February 1994. **TI** Preventing Financial Crises: An International Perspective. **AA** Mishkin: Columbia University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4636; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 44. **PR** $5.00. **JE** F21, E58, G21, G32, D82. **KW** Financial Crises. International Financial Crises.
AB In recent years the possiblity of an international financial crisis has increased because of greater liquidity of international financial markets, an increase in corporate indebtedness and the decline of the banking industry. Using an asymmetric information analysis, this paper outlines what signals a central bank might look for to determine if a financial crisis is occurring and then describes how central banks might operate and cooperate to prevent financial crises.

Mitchell, Olivia S.

PD January 1994. **TI** Public Pension Governance and Performance. **AU** Mitchell, Olivia S.; Hsin, Ping Lung. **AA** Mitchell: University of Pennsylvania and National Bureau of Economic Research. Hsin: Cornell University. **SR** National Bureau of Economic Research Working Paper: 4632; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** $5.00. **JE** H55, H70. **KW** Public Pensions.
AB This paper investigates the determinants of public sector pension plan investment and funding behavior using a new survey of U.S. state and local public pension plan governance practices and performance outcomes. Its goal is to draw lessons which may be used to improve the design and governance of public pensions. The study suggests that most large public pension systems funded their plans satisfactorily in 1990, but some did not. Better public pension funding was associated with a pension system having in-house actuaries and when pension Board members were required to carry liability insurance. In contrast, public pension funding was lower when states experienced fiscal stress and when employees were represented on the pension system Board. The results also suggest that public pension Boards having more retiree-Trustees experienced lower investment returns, as did public sector pension plans required to devote a portion of their assets to in-state investments. No single set of pension plan management practices can optimize plan performance for all systems across all time periods. Nevertheless, these results suggest that care must be taken when designing the regulatory and investment environment in which these plans operate.

Mohnen, Pierre

TI International R&D Spillovers Between U.S. and Japanese R&D Intensive Sectors. **AU** Bernstein, Jeffrey I.; Mohnen, Pierre.

Monfort, A.

TI Linear Factor Models and the Term Structure of Interest Rates. **AU** Clement, E.; Gourieroux, C.; Monfort, A.

Moore, Barry

PD July 1993. **TI** Financial Constraints to the Growth and Development of Small High-Technology Firms. **AA** University of Cambridge. **SR** University of Cambridge Small Business Research Centre Working Papers: 31; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 35. **PR** $10.00 (L5.00); checks payable to University of Cambridge. **JE** G32, L63. **KW** Finance. Innovation. Small Firms.
AB This paper seeks to test the hypothesis that small high-technology firms face relatively more severe problems in acquiring finance that small firms in the "conventional" sector. The first part of the paper concentrates on financial constraints at start-up and early stage development relying on evidence obtained from 89 case studies. Subsequent sections of the paper focus on financial constraints at later states in the life cycle of the small firm, using the SBRC database which contains approximately 300 high-technology companies out of a total of about 12,000. In the period of early growth the availability and cost of finance for expansion presents the most important constraints facing high-technology firms but it is only marginally more severe than that facing "conventional" firms.

Morgan, Donald P.

PD December 1993. **TI** Bank Monitoring Mitigates Agency Problems: New Evidence Using the Financial Covenants in Bank Loan Commitments. **AA** Federal Reserve Bank of Kansas City. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-16; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 20. **PR** no charge. **JE** G21. **KW** Bank Loans. Liquidity.
AB Since agency problems force firms to finance investment with internal funds, or liquidity, firms should be less liquidity constrained when they submit to financial covenants designed to control agency problems. Accordingly, I test if liquidity constraints are looser when firms have a bank loan commitment with covenants restricting their dividends, debt issuance, net worth, and working capital. When firms have a loan commitment with all four covenants, they are completely unconstrained. In contrast, when firms have a commitment without covenants, they are just as constrained as when they have no commitment at all. These findings indicate that financial covenants and the bank monitoring they entail mitigate agency problems.

Morris, Charles

TI Reduced Form Evidence on the Substitutability Between Bank and Nonbank Loans. **AU** Becketti, Sean; Morris, Charles.

Moulton, Kirby

PD January 1994. **TI** Dimensions of the Global

Processing Tomato Industry. **AU** Moulton, Kirby; Garoyan, Leon; Hetland, Norman. **AA** Moulton and Hetland: University of California, Berkeley. Garoyan: University of California, Davis. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 692R; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 15. **PR** $5.00. **JE** Q11. **KW** Tomato Paste. Excess Capacity. Oversupply.

AB This paper considers the capability of the world processing tomato industry to expand tomato paste production without requiring substantial new capital investment. It responds to concerns about a return to the depressing oversupply conditions of the last few years. We conclude that such a danger exists because there is a current global overcapacity of 5 million metric tons of raw product beyond 1993 input levels. Attempts to utilize this capacity, without a corresponding increase in consumer demand, would depress paste prices once again below profitable levels. Our analysis focuses on supply side issues only, and not on potential demand changes.

Mullahy, John

PD February 1994. **TI** Health, Income, and Risk Aversion: Assessing Some Welfare Costs of Alcoholism and Poor Health. **AU** Mullahy, John; Sindelar, Jody L. **AA** Mullahy: Trinity College and National Bureau of Economic Research. Sindelar: Yale University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4649; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $5.00. **JE** I10, D69, D81. **KW** Health. Risk Preferences. Alcoholism.

AB The economic costs of adverse health outcomes have typically been evaluated in a context of risk neutrality, an approach that ignores the potential welfare importance of individuals' risk preferences. This paper presents a framework that unifies the research in health capital and earnings with that on risk preferences in the presence of stochastic outcomes. The model is implemented to obtain estimates of the economic damages due both to general health problems as well as to one specific health problem that is of considerable interest from society's perspective: alcoholism. Our empirical findings, based on data from the Epidemiologic Catchment Area survey, indicate that failure to recognize the possibility of risk averse preferences lead to a potentially serious underestimation of the magnitudes of the "cost" of alcoholism and poor health. In particular, it is shown that while alcoholism problems have negative impacts on the conditional mean of income (consistent with most of the existing literature), they also have positive impacts on the conditional variance of income. Our conclusions are to some degree provisional because our estimates of conditional variances are necessarily biased to the extent that unobserved heterogeneity is an important determinant of the moment structure of income in our sample.

Mussa, Michael

TI The Integration of World Capital Markets. **AU** Goldstein, Morris; Mussa, Michael.

Nascimento, Jean-Claude

PD January 1994. **TI** Monetary Policy in Unified Currency Areas: The Cases of the CAMA and ECCA during 1976-90. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/11; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 22. **PR** not available. **JE** E52, F32. **KW** Monetary Policy. Central Africa. Monetary Policy. Caribbean. Unified Currency.

AB The paper compares the performance of monetary policy in the Central African Monetary Area (CAMA) and the Eastern Caribbean Currency Area (ECCA) during 1976-90. Their institutional setup and mechanism for monetary control are examined to explain the opposite trends in the net external position of their banking system during this period. It concludes that monetary policy in the ECCA succeeded by relying on active interest rate management aimed at stemming capital outflows and adhering to stringent rules aimed at limiting credit expansion. The passive policy stance in the CAMA contributed to a significant redistribution of the area's money stock.

Neary, J. Peter

TI A New Approach to Evaluating Trade Policy. **AU** Anderson, James E.; Neary, J. Peter.

TI Domestic Distortions and International Trade. **AU** Anderson, James E.; Neary, J. Peter.

TI Measuring the Restrictiveness of Trade Policy. **AU** Anderson, James E.; Neary, J. Peter.

PD January 1994. **TI** External Shocks, Policy Response and Economic Performance. **AA** London School of Economics, University College Dublin and Center of Economic Policy Research. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 187; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 33. **PR** no charge. **JE** F13, F10. **KW** Trade Policy. Tariffs. Quotas. Shadow Price.

AB This paper examines the responsiveness of real income and the balance of payments to external shocks in a small open economy. It is shown that tariff restrictions and wage rigidities tend to increase responsiveness and quota restrictions tend to reduce it. The implications for policy response are considered and a microtheoretic foundation for the distinction between expenditure-reducing and expenditure-switching policies is provided.

Nedde, Ellen M.

PD December 1993. **TI** U.S. Health Care Reform. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/93/93; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 19. **PR** not available. **JE** I11, I18. **KW** Health Care Reform. Universal Coverage.

AB High and rapidly rising health care costs in the United States and growing ranks of uninsured persons have brought health care reform to the top of the U.S. Administration's policy agenda. This paper describes the health care financing system in the United States, highlights what are viewed as its most serious shortcomings, and explores possible reasons for high and rising medical care costs. After brief descriptions of alternative reform proposals, the paper discusses universal coverage under managed competition and its ability to deal with the equity and efficiency problems in the U.S. health care system.

Nehring, Klaus

PD March 1994. **TI** Continuous Extensions of an Order on a Set to the Power Set. **AU** Nehring, Klaus; Puppe, Clemens. **AA** Nehring: University of California, Davis. Puppe: University of Vienna. **SR** University of California at Davis Economics Department Working Paper: 94-5; Department of Economics, University of California at Davis, CA 95616-8578. **PG** 27. **PR** $3.00 U.S. and Canada. $4.00 International. **JE** D71, D81. **KW** Order Extension. Indirect Utility. Freedom. Complete Ignorance.

AB The paper addresses the problem of extending an order on a set to a ranking of its subsets based on principles of independence and continuity. The central result is a characterization of rankings that depend on the maximal and minimal element only. The independence condition used in this result is contrasted with a stronger independence condition prevalent in the literature on complete ignorance problems in decision making under uncertainty and - under a different interpretation - also in the literature on "freedom of choice." We identify the additional restrictions implied by the stronger independence condition and obtain a simple characterization of the class of all complete and continuous rankings satisfying this condition. A series of corollaries reformulates in our continuous setting some of the main results in the literature, clarifying, in particular, the nature of the major impossibility result due to Kannai and Peleg.

PD May 1994. **TI** Incentive-Compatible and Efficient Resource Allocation in Large Economies: A General Characterization of Walrasian Choice-Functions. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 94-09; Department of Economics, University of California at Davis, CA 95616-8578. **PG** 28. **PR** $3.00 U.S. and Canada. $4.00 International. **JE** D41, D61, D82. **KW** Incentive Compatibility. Large Economy. Pareto Efficiency. Perfect Competition.

AB The main result of this paper characterizes (Nash) incentive-compatible and efficient choice-functions in large private-goods economies as Walrasian. Efficiency is defined here as impossibility of improvement by reallocation of commodities among finite sets of agents. In contrast to the literature, no assumption of symmetry of the choice-function is made, nor are restrictions on the distribution of characteristics in the actual economy imposed. The present finitary definition of efficiency allows the proofs to remain elementary throughout. Implications of the main result for "implementable" allocations satisfying additional properties such as individual rationality and symmetry are also obtained. The nonneglible divergence of these results from those based on measure-theoretic definitions of efficiency is pointed out and discussed.

Neisser, Heinrich

PD May 1994. **TI** Austria's Role in the New Europe. **AA** University of Vienna and Stanford University. **SR** Stanford Hoover Institution International Studies Working Paper: I-94-4; The Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 17. **PR** no charge. **JE** F02, O52, F15, F40. **KW** European Community. Eastern Europe. International Order.

AB In the Western part of Europe a process of political and economic integration is taking place. European politics are dominated by the European Community (EC). In contrast, the Eastern part of Europe can be characterized as a process of disintegration caused by tensions between the nationalities, increasing difficulties in the economic development, and more complicated domestic situations, especially because of inability of political institutions to manage a multi-party system which can be characterized by the principle of the separation of power. From a strategic point of view the main problems can be reduced to two questions. How can we place regime changes in Eastern Europe in the context of the global trend from the authoritarian regimes to a further democratic development without the danger of the revival of the old communist party? What efforts do we need to establish a new security order for Europe, to summarize the changes in the Eastern European international system, to identify ways in which it may evolve and to set forth some of the implications of these two processes for stability and security?.

Nellor, David C. L.

PD April 1994. **TI** Energy Taxes and Macroeconomic Policy Objectives. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/09; International Monetary Fund, Washington, DC 20431. **PG** 19. **PR** not available. **JE** E61, E62, H20. **KW** Fiscal Deficit. Energy Taxes. Tax Instruments.

AB The European Commission and U.S. Government have proposed energy taxes as an effective tax instrument for achieving macroeconomic objectives of output and employment, and as an efficient vehicle for fiscal deficit reduction. This proposition is examined and it is concluded that, to the contrary, macroeconomic objectives are likely to be met more effectively by broad-based taxes rather than energy taxes.

Nelson, Julie A.

PD April 1994. **TI** The Frequency of Consumer Expenditure: An Empirical Analysis. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 94-08; Department of Economics, University of California at Davis, CA 95616-8578. **PG** 24. **PR** $3.00 U.S. and Canada. $4.00 International. **JE** D12, C81. **KW** Consumption. Demand. Expenditure. Data Quality. Frequency of Expenditure.

AB How does the observed pattern of household purchases vary, as we extend or shorten the period of observation? Over the course of a year, how often do households tend to purchase certain goods? These questions have implications for the empirical measurement of consumption, for the econometric treatment of zero expenditures, and for survey design and data imputation. An empirical analysis of data from the U.S. consumer Expenditure Survey, Interview Survey, from 1987-1989, reveals that there is considerable heterogeneity across disaggregate goods and across households in the frequency of expenditure. Issues of data quality are discussed.

Neumark, David

PD January 1994. **TI** Minimum Wage Effects and Low-Wage Labor Markets: A Disequilibrium Approach. **AU** Neumark, David; Wascher, William. **AA** Neumark: University of Pennsylvania and National Bureau of Economic Research. Wascher: Board of Governors of the Federal Reserve System. **SR** National Bureau of Economic Research Working Paper: 4617; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29.

PR \$5.00. **JE** C51, J31, J42, J23. **KW** Minimum Wage Effects. Labor Market Disequilibrium.

AB We present a new approach to estimating minimum wage effects on employment. In contrast to most previous research, we account for the possibility that the relationship between minimum wages and employment depends on the magnitude of the minimum wage relative to the equilibrium wage in the absence of the legislated minimum. In particular, estimating the employment effects of binding minimum wages requires separation of sample observations into those that are on the labor demand curve but off the labor supply curve and those that are at labor market equilibria. The paper implements an endogenous switching regression model with unknown sample separation that yields these estimates. The approach also yields estimates of the impact of labor market characteristics on the probability that minimum wages are binding. We also extend the disequilibrium approach to monopsony, which introduces a third regime between the equilibium monospony wage and the equilibrium competitive wage, in which observations are on the labor supply curve but off the labor demand curve. Minimum wage effects under monopsony are estimated in a three-regime endogenous switching regression model with unknown regimes, and the monopsony characterization of low-wage labor markets is tested against the competitive characterization.

PD March 1994. **TI** Minimum Wage Effects on Employment and School Enrollment. **AU** Neumark, David; Wascher, William. **AA** Neumark: University of Pennsylvania and National Bureau of Economic Research. Wascher: Board of Governors of the Federal Reserve System. **SR** National Bureau of Economic Research Working Paper: 4679; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 16. **PR** \$5.00. **JE** I20, J22, J23, J31. **KW** Wages. Logit Model. Adolescents.

AB We argue in this paper that the focus on employment effects in recent studies of minimum wages ignores an important interaction between schooling, employment, and the minimum wages. To study these linkages, we estimate a conditional logit model of employment and enrollment outcomes for teenagers using state-year observations for the period 1977 to 1989. The results show a negative influence of minimum wages on school enrollment and a positive effect on the proportion of teens neither employed nor in school. We further suggest that our results are consistent with substitution by employers of higher-skilled for lower-skilled teenagers, with the displaced teens ending up both out of work and out of school.

PD April 1994. **TI** Rents and Quasi-Rents in the Wage Structure: Evidence From Hostile Takeovers. **AU** Neumark, David; Sharpe, Steven A. **AA** Neumark: University of Pennsylvania and National Bureau of Economic Research. Sharpe: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-6; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 20. **PR** no charge. **JE** D21, G34, J24, J26, J33, J41. **KW** Stakeholder. Expropriation. Hostile Takeover. Wage Premia. Implicit Contracts.

AB The "wealth-transfer" hypothesis argues that hostile takeovers facilitate opportunistic behavior at the expense of workers. In this paper we test the hypotheses that industry-related variation in wage premia and slopes of wage profiles reflects payments of rents or quasi-rents, taking our cue from the wealth-transfer hypothesis. If these characteristics of the wage structure reflect extramarginal payments, then hostile takeover attempts that sought to transfer wealth from workers to shareholders should have targeted firms with the highest incidence of these payments. We carry out this test using firm-level Compustat data matched to Census-of-Population industry-level data using Compustat industry segment files. We find that the likelihood of being a hostile takeover target between 1979-1989 was generally unrelated to these industry-related characteristics of the wage structure, with the exception of a limited number of specifications and subsamples. If the wealth-transfer hypothesis is correct, as some empirical research suggests, then our results provide relatively little support for the view that industry-related characteristics of the wage structure reflect rents or quasi-rents paid to workers. The results do not, however, rule out the possibility that within-industry, firm-specific variation in wage structure characteristics reflects such rents.

Neumark, David

PD March 1994. **TI** Why Do Wage Profiles Slope Upwards? Tests of the General Human Capital Model. **AU** Neumark: David; Taubman, Paul. **AA** Neumark and Taubman: University of Pennsylvania and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4688; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$5.00. **JE** J31. **KW** Human Capital. Wage Level. Wage Growth.

AB This paper tests some empirical implications of the general human capital model's explanation of rising wage profiles. At the individual level, the model implies that there will be a negative relationship between the initial wage level and the wage growth of young, inexperienced workers. At the market level, the model implies that the present value of the wage profile of an investor equals that of an otherwise identical non-investor, or that the ratio of the present values equals one. We test both of these hypotheses. Evidence on the wage level/wage growth tradeoff points to a negative relationship between initial wage levels and wage growth, even after correcting for negative biases that may have influenced existing estimates of this relationship. Evidence on present values of wage profiles suggests that the ratio of the present value of rising wage profiles to flat wage profiles is quite close to one. Alternative estimates of this ratio are tightly clustered around one, and more often than not are insignificantly different from one. Overall, then, the evidence is largely consistent with the general human capital model.

Newey, Whitney K.

PD November 1993. **TI** Flexible Simulated Moment Estimation of Nonlinear Errors-in-Variables Models. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-18; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 21. **PR** \$8.00 Domestic; \$10.00 Overseas; \$5.00 Student. **JE** C13, C15, C81. **KW** Errors-In-Variables. Nonlinear. Simulated Moment Estimation.

AB Nonlinear regression models with measurement error are important but difficult to estimate. Measurement error is a common problem in microeconomic data. Instrumental variables estimators are not consistent for these models, as discussed in Amemiya (1985), so that alternative approaches must be adopted. The purpose of this paper is to develop an approach based on a prediction equation for the true variable that uses simulation to simplify computation. The approach allows for flexibility in the distribution being simulated and could be used for simulation estimation of other models.

PD May 1994. **TI** Consistency of Quasi-Maximum Likelihood Estimators for Models With Conditional Heteroscedasticity. **AU** Newey, Whitney K.; Steigerwald, Douglas G. **AA** Newey: Massachusetts Institute of Technology. Steigerwald: University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 5-94; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 10. **PR** no charge. **JE** C13, C22. **KW** Conditional Heteroskedasticity. Quasi-Maximum Likelihood.
AB Virtually all empirical studies that assume a time-varying conditional variance use a quasi-maximum likelihood estimator (QMLE). It is known that the QMLE is consistent when the assumed likelihood is Gaussian. We show that when the assumed likelihood is non-Gaussian, the QMLE is generally not consistent. To ensure that a non-Gaussian QMLE is consistent the expectation of the assumed log-likelihood must have a unique maximum. A sufficient condition for the expectation of the non-Gaussian log-likelihood to have a unique maximum is that the conditional standard deviation be included as a regressor. We use this condition to develop a test of consistency of the QMLE.

Newlon, T. Scott
TI Do Repatriation Taxes Matter? Evidence From the Tax Returns of U.S. Multinationals. **AU** Altshuler, Rosanne; Newlon, T. Scott; Randolph, William C.

Nguyen, Hien H.
PD April 1994. **TI** Capital Market Imperfections and the Incentive to Lease. **AU** Nguyen, Hien H.; Sharpe, Steven A. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-5; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 19. **PR** no charge. **JE** G31, G32, E22. **KW** Leasing. Asymmetric Information. Capital Structure. Capital Market Imperfections.
AB This paper evaluates the influence of financial contracting costs on the propensity for public corporations to lease fixed capital. We argue that firms facing high costs of external credit, due either to severe asymmetric information or agency costs can economize on the cost of credit by leasing. To examine this hypothesis, we construct several measures of a firm's propensity to lease as well as various a priori indicators of the likelihood any given firm's investment in fixed capital is financially constrained owing to information costs. We find evidence that firms facing high information-cost premiums for external funds finance a significantly greater proportion of their on balance sheet fixed assets with leases. More broadly, the share of their total annual fixed capital costs associated with capitalized and operating leases is significantly and substantially higher compared with firms relatively unhampered by financial constraints. These results hold up even when controlling for firm size; not surprisingly, leasing propensity is negatively related to firm size, a characteristic that may serve as a proxy for both financial as well as "technological" factors that influence the lease-versus-buy decision. Finally, firms with tax-loss carryforwards also show a higher propensity to lease.

Nguyen, Sang V.
TI On Productivity and Plant Ownership Change: New Evidence From the LRD. **AU** McGuckin, Robert H.; Nguyen, Sang V.

Nichele, V.
PD October 1993. **TI** Simulation of Indirect Tax Reforms Using Pooled Micro and Macro French Data. **AU** Nichele, V.; Robin, J. M. **AA** Nichele: INRA and INSEE. Robin: INRA and CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9343; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 15. **PR** no charge. **JE** H22, H31, D12, H23. **KW** Taxation. Household Expenditure. VAT.
AB This paper assesses the consequences of two reforms of the French indirect taxation system: a VAT harmonization which is close to initial EC proposals and a carbon tax which aims at decreasing the emissions of carbon dioxide. We simulate the effects of tax reforms using estimates of a model of households expenditure behavior. Estimation is obtained by using the property of perfect aggregation over households of the Almost Ideal demand system on pooled micro data from the 1978-79, 1984-85, and 1989 waves of the French "Enquete Budgets des Familles" combined with macro data from the Quarterly National Accounts from 1970 to 1990. Simulations are conducted using a subsample of households from the 1989 consumer survey and generate useful results about the behavioral reactions to tax changes, the impact on government revenue as well as the distributional effects of the reforms.

Nickell, Stephen
PD November 1993. **TI** Competition and Corporate Performance. **AA** University of Oxford and London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 182; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 36. **PR** no charge. **JE** D21, L21. **KW** Competition. Performance. Productivity.
AB This paper investigates the impact of competition on the productivity performance of companies. The key hypothesis is that firms which operate in a more competitive environment have higher levels of productivity and/or higher rates of productivity growth. We summarize the theoretical foundation for this hypotheses and the empirical evidence in its favor. Both are very thin. We then present some evidence based on a panel of UK manufacturing companies which provides support for the key hypothesis.

O'Brien, James
PD June 1994. **TI** Estimating the Interest Sensitivity of Liquid Retail Deposit Values. **AU** O'Brien, James; Orphanides, Athanasios; Small, David. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-15; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 22. **PR** no charge. **JE** G18, G21. **KW** Duration. Retial Deposits. Interest Rate Risk.

AB One of the most difficult issues in the measurement of bank interest rate risk is the interest rate risk of liquid retail deposits. In this study, estimates are developed for the interest rate sensitivity of the value of interest-bearing checkable deposits (OCD's) and savings deposits defined to include MMDA's and other savings accounts. These interest rate sensitivities are measured by the percentage change in the value of the deposit liability due to a change in market interest rates which, for a permanent rate shock and hence parallel yield curve shift, represent the deposits "duration." The value of the deposit liability is equal to the deposit balance net of the present value of economic profits earned on the liability. Because deposit rates adjust upward to market rates more slowly than downward, the interest rate sensitivity of the economic profits from liquid deposit accounts tends to be greater when deposit rates are rising than when they are falling. As a consequence, durations tend to be relatively large when deposit rates are moving up and small when deposit rates are moving down. Durations are estimated for permanent shocks to market rates for aggregated deposit categories and for individual banks. The consequences for deposit interest rate sensitivities are further examined for stochastic, mean-reverting market rates and nonparallel yield curve shifts.

O'Brien, Raymond

TI Cointegration Tests and Mean Shifts. **AU** Andrade, Isabel C.; O'Brien, Raymond; Podivinsky, Jan M.

Obstfeld, Maurice

PD February 1994. **TI** The Logic of Currency Crises. **AA** University of California, Berkeley and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4640; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 50. **PR** $5.00. **JE** F31, F33, F41, E61. **KW** Currency Crises. Fixed Exchange Rate Regime. Balance-of-Payments.

AB Once one recognizes that governments borrow international reserves and exercise other policy options to defend fixed exchange rates during currency crises, the question arises: What factors determine a government's decision to abandon a currency peg or hang on? In a setting of purposeful action by the authorities, the possibility of self-fulfilling crises becomes important. Speculative anticipations depend on conjectured government responses, which depend, in turn, on how price changes (that are themselves fueled by expectations) affect the government's economic and political positions. The circular dynamic implies a potential for crises that need not have occurred but do occur because market participants expect them to. In contrast to this picture, most previous literature on balance-of-payments crises ignores the response of government behavior to markets. That literature, I argue, throws little light on events such as the European Exchange Rate Mechanism collapse of 1992-93. This paper then presents two different models in which crisis and realignment result from the interaction of rational private economic actors and a government that pursues well-defined policy goals. In both, arbitrary expectational shifts can turn a fairly credible exchange-rate peg into a fragile one.

PD April 1994. **TI** Exchange Rate Dynamics Redux. **AU** Obstfeld, Maurice; Rogoff, Kenneth. **AA** Obstfeld: University of California, Berkeley and National Bureau of Economic Research. Rogoff: Princeton University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4693; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** E23, F31, F41. **KW** Open Economy. Sticky Prices. Current Account.

AB Until now, thinking on open economy macroeconomics has been largely schizophrenic. When it comes to analyzing exchange rate dynamics, an empirically-minded economist abandons modern current account models which, while theoretically coherent, fail to address the awkward reality of sticky nominal prices. In this paper we develop an analytically tractable two-country model that marries a full account of dynamics to a supply framework based on monopolistic competition and sticky prices. It offers simple and intuitive predictions about exchange rates and current accounts that sometimes differ sharply from those of either modern flexible-price intertemporal models, or traditional sticky-price Keynesian models. The model also leads to a novel perspective on the international welfare spillovers of monetary and fiscal policies.

PD May 1994. **TI** International Capital Mobility in the 1990's. **AA** University of California, Berkeley, Centre for Economic Policy Research and National Bureau of Economic Research. **SR** University of California at Berkeley Center for International and Development Economics Research Working Paper: C94-037; IBER, 156 Barrows Hall, University of California, Berkeley, Berkeley, CA 94720. **PG** 62. **PR** no charge. **JE** F21, F36, G15. **KW** International Capital Movements. Financial Integration.

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.

PD June 1994. **TI** International Capital Mobility in the 1990's. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 472; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 74. **PR** no charge. **JE** F21, G15. **KW** International Capital Mobility. International Diversification. Feldstein-Horioka Puzzle.

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 capital mobility has increased markedly over the last two decades, international capital movements remain less free than intranational movements even among the industrial countries.

Okamura, Kumiko

TI Convergence to Steady State Growth: A Model for Japan (1965-90). **AU** Sengupta, Jati K.; Okamura, Kumiko.

Orphanides, Athanasios

PD December 1993. **TI** The Empirical Properties of a Monetary Aggregates That Adds Bond and Stock Funds to M2. **AU** Orphanides, Athanasios; Reid, Brian; Small, David. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93-42; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 37. **PR** no charge. **JE** E41. **KW** M2. Money Demand. Bond Mutual Funds. Stock Mutual Funds. Mutual Funds.

AB This paper examines empirical properties and the usefulness of a new monetary aggregate, defined as M2+, that adds bond and stock mutual funds to M2. The three main issues examined are the stability of the demand for the new aggregate, its information content as an indicator of output, and its controllability. To assess these characteristics of M2+, demand functions and reduced-form relationships between M2+ and income are estimated.

TI Taxation and Intergenerational Transfers With Family Size Heterogeneity: Do Parents With More Children Prefer Higher Taxes? **AU** Hess, Gregory D.; Orphanides, Athanasios.

TI Estimating the Interest Sensitivity of Liquid Retail Deposit Values. **AU** O'Brien, James; Orphanides, Athanasios; Small, David.

Ossowski, Rolando

TI Shortages Under Free Prices: The Case of Ukraine in 1992. **AU** Sundakov, Alexander; Ossowski, Rolando; Lane, Timothy.

Ostry, Jonathan D.

TI Export Instability and the External Balance in Developing Countries. **AU** Ghosh, Atish R.; Ostry, Jonathan D.

Oswald, Andrew

TI Unemployment, Oil Prices and the Real Interest Rate: Evidence From Canada and the UK. **AU** Carruth, Alan; Hooker, Mark; Oswald, Andrew.

Paarsch, Harry J.

PD October 1992. **TI** A Comparison of Estimators for Empirical Models of Auctions. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9210; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 16. **PR** Canada $5.00; Elsewhere $7.00. **JE** D44, C13, C72, D82. **KW** Procurement Auction. Estimation. Incomplete Information.

AB Using structural econometric models of equilibrium behavior in games with ncomplete information to interpret field data from auctions has become ncreasingly widespread. Several different estimation strategies now exist. n this paper, I compare the performance of these different estimators sing a stylized empirical model of a procurement auction within the ndependent private values paradigm.

TI Maximum Likelihood Estimation in Empirical Models of Auctions. **AU** Donald, Stephen G.; Paarsch, Harry J.

PD October 1992. **TI** Empirical Models of Auctions and an Application to British Columbian Timber Sales. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9212; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 37. **PR** Canada $5.00; Elsewhere $7.00. **JE** D44, C72, D82. **KW** Common Value Auction. Private Value. Rational Behavior.

AB In this paper,I consider simple game-theoretic models of behavior at English and first-price sealed-bid auctions within both the common and private value paradigms. The empirical implications of these models are confronted by data from a sample of timber sales held in the province of British Columbia, Canada, first in terms of the reduced form predictions to determine which paradigm appears appropriate. Subsequently, I investigate whether the data support rational behavior within a particular paradigm by examining the structural predictions implied by the theory.

TI Identification in Empirical Models of Auctions. **AU** Donald, Stephen G.; Paarsch, Harry J.

PD March 1993. **TI** On the Choice of Mechanism to Sell Timber. **AU** Paarsch, Harry J.; Wang, Gyu Ho. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9306; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 14. **PR** Canada $7.00; Elsewhere $9.00. **JE** L73, D82. **KW** Monitoring. Timber Prices. Risk Sharing.

AB Monitoring problems often constrain governments to sell timber using simple lump-sum or fixed stumpage rate mechanisms. With timber of homogeneous quality and no uncertainty concerning its value, lump-sum charges are more efficient than stumpage rates. When no uncertainty concerning value exists, but timber is of heterogeneous quality with timber prices reflecting this heterogeneity, then stumpage rates induce the harvesting of only the best grades of timber, while lump-sum charges result in the efficient choice of quality. Admitting uncertainty concerning the value of timber implies that a mixture of lump-sum payments and stumpage rates promotes efficient risk sharing and timber recovery.

TI A Survey of Recent Empirical Work Concerning Auctions. **AU** Hendricks, Kenneth; Paarsch, Harry J.

PD September 1993. **TI** Deriving an Estimate of the Optimal Auction: An Application to British Columbian Timber Sales. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9315; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 17. **PR** Canada $7.00; Elsewhere $9.00. **JE** D44. **KW** Private Value. Auctions.

AB In this paper, I use a simple game-theoretic model of behavior at English auctions within the independent private values paradigm to put structure upon data from a sample of timber sales held in the province of British Columbia where, to a first approximation, the independent private values paradigm appears appropriate. I then estimate several different empirical specifications and use the methods of Vuong to decide which model is closer to the truth than the others. Under different assumptions concerning the seller's valuation of the timber, estimates of the optimal auction are calculated.

Palia, Darius

TI The Political Economy of Branching Restrictions and Deposit Insurance: A Model of Monopolistic Competition Among Small and Large Banks. **AU** Economides, Nicholas; Hubbard, R. Glenn; Palia, Darius.

Park, Sangkyun

PD March 1994. **TI** The Bank Capital Requirement and Information Asymmetry. **AA** Federal Reserve Bank of St. Louis. **SR** Federal Reserve Bank of St. Louis Working Paper: 94-005A; Research and Public Information Division, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. **PG** 35. **PR** no charge. **JE** G21. **KW** Capital Requirements. Information Asymmetry. Credit Crunch.

AB This paper recognizes two main factors that cause the capital requirement to affect the weighted average cost of capital and hence the investment behavior of banks: underpriced debt resulting from the deposit insurance and information asymmetry between managers and the stock market. For a bank enjoying a low cost of debt (deposits), an increased proportion of equity financing raises the weighted average cost of capital. When the stock market underestimates the value of a bank due to information asymmetry, equity financing is expensive. This paper finds that banks constrained by the tightened capital requirement grew slower in 1991 and that information asymmetry as well as underpriced deposits played a role in explaining the slower growth.

Paroush, Jacob

PD February 1994. **TI** The Suboptimality of Incentive Contracts in a Contracting Model. **AU** Paroush, Jacob; Prager, Jonas. **AA** Paroush: Bar Ilan University. Prager: New York University. **SR** New York University Economic Research Report: 94-01; New York University, Faculty of Arts and Science, Department of Economics, 269 Mercer Street New York, N.Y. 10003. **PG** 11.. **PR** no charge. **JE** L83, D81. **KW** Contracting Out.

AB We take issue with the fundamental privatization theorem of Sappington and Stiglitz, which asserts that a government contracting-out auction can be --and by implication, should be--designed to maximize output while simultaneously extracting all contractor rent. We demonstrate through a model that accepts the possibility of contractor deception that welfare can be enhanced by permitting the contractor to retain some of the rent.

Parsons, George R.

PD January 1994. **TI** A Demand Theory for Number of Trips in A Random Utility Model of Recreation. **AU** Parsons, George R.; Kealy, Mary Jo. **AA** Parsons: University of Delaware. Kealy: U.S. Environmental Protection Agency. **SR** University of Delaware Department of Economics Working Paper: 94-1; College of Business and Economics, Department of Economics, University of Delaware, Newark, Delaware 19716-2720. **PG** 13. **PR** not available. **JE** R53, D12. **KW** Recreation Sites. Participation Function.

AB We present a simple Random Utility Model of recreation site choice that incorporates an aggregate demand function for number of trips during a season. We derive the trip demand function using conventional demand theory and use it to calculate seasonal welfare changes due to improvements in site characteristics or addition of new sites. The model is based on Bockstael, Hanemann, and Kling's participation function.

Peck, Suzanne

PD October 1993. **TI** Testing the Advantages of Using Product Level Data to Create Linkages Across Industrial Coding System. **AA** U.S. Bureau of the Census. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: CES93-14; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 38. **PR** no charge. **JE** C81, L60. **KW** SIC Revision. Product Codes. Industry Codes.

AB After the major revision of the U.S. Standard Industrial Classification system (SIC) in the 1987, the problem arose of how to evaluate industrial performance over time. The revision resulted in the creation of new industries, the combination of old industries, and the remixing of other industries to better reflect the present U.S. economy. A method had to be developed to make the old and new sets of industries comparable over time. Ryten (1991) argues for performing the conversion at the "most micro level," the product level. Linking industries should be accomplished by reclassifying product data of each establishment to a standard system, reassigning the primary activity of the establishment, reaggregating the data to the industry level, and then making the desired statistical comparison (Ryten, 1991). This paper discusses linking the data at the very micro, product level, and at the more macro, industry level. The results suggest that with complete product information the product level conversion is preferable for most industries in manufacturing because it recognizes that establishments may switch their primary industry because of the conversion. For some industries, especially those having no substantial changes in SIC codes over time, the conversion at the industry level is fairly accurate. A small group of industries lacks complete product information in 1982 to link the 1982 product codes to the 1987 codes. This results in having to rely on the industry concordance to create a time series of statistics.

Peeters, H. M. M.

PD December 1993. **TI** Persistence Asymmetries and Interrelation in Manufacturing Structures Equipment and Labour Demand. **AA** University of Limburg. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9402; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 42. **PR** no charge. **JE** E13, E22, D24, J23. **KW** Labor Demand. Investment Lags. Adjustment Costs.

AB A neoclassical intertemporal model is adopted in which structures, equipment and labor determine producers profits. Three divergences with other factor demand studies exist. First, the model accounts for investment gestation lags: structures are assumed to need multi-period time-to-build according to Kydland and Prescott (1982) whereas equipment gestates only one period. Second, asymmetries result from the irreversibility of investment outlays and from labor adjustment costs. As a third divergence, "external" adjustment costs may occur as investment demand can affect investment prices. The model is estimated by the General Method of Moments (GMM) using quarterly manufacturing industry data of six industrial countries. The results support the time-to-build for structures and the persistence of technology shocks. Interrelated internal adjustment costs are corroborated for the United States, Canada, the United Kingdom and the Netherlands.

Peled, Dan

TI Inequality and Capital Accumulation Under Majority Voting Taxation. **AU** Aiyagari, S. Rao; Peled, Dan.

Perloff, Jeffrey M.

TI Can Market Power be Estimated? **AU** Hyde, Charles; Perloff, Jeffrey M.

TI Estimating the Size Distribution of Firms Using Government Summary Statistics. **AU** Golan, Amos; Judge, George; Perloff, Jeffrey M.

TI Do Women and Minorities Earn Less Due to Occupational Segregation, Lower Wages, or Fewer Hours? **AU** Lynch, Lori; Perloff, Jeffrey M.

Perotti, Roberto

TI The Political Economy of Budget Deficits. **AU** Alesina, Alberto; Perotti, Roberto.

Perroni, Carlo

PD June 1993. **TI** Endogenous Growth and the Choice of Tax Base. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9313; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 29. **PR** Canada $7.00; Elsewhere $9.00. **JE** H21, H31, H32. **KW** Income Tax. Wage Tax. Welfare Effects.

AB This paper explores the implications of different types of growth supporting mechanisms for the welfare costs of taxation in the context of a perfect-foresight two-sector model with linear endogenous growth. A calibrated version of this model is used to obtain numerical estimates of the welfare impact of equal-yield unanticipated tax changes through transitional analysis. The results of our simulations indicate that the size of the welfare effects of tax reform depends crucially on the mechanism underlying the production of knowledge, on the degree of complementarity between knowledge creation and physical investment, and on factor intensities. As in a neoclassical setting, a move from income taxation to wage taxation can be welfare improving. When growth is fuelled by investment in knowledge by optimizing agents, however, the presence of endogenous growth mechanisms considerably strengthens the case in favor of a consumption tax in comparison with a wage tax.

PD January 1994. **TI** The New Regionalism: Trade Liberalization or Insurance? **AU** Perroni, Carlo.; Whalley, John. **AA** Perroni and Whalley: University of Western Ontario. Whalley: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4626; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** $5.00. **JE** F13, F41, F42. **KW** Regional Trade Agreements.

AB Several of the recently negotiated regional trade agreements (Canada-U.S., NAFTA, E.C.-Hungary/Poland/Czeck and Slovak Republics) contain significantly fewer concessions by the large countries to smaller countries than vice versa. Yet, it is small countries that have sought them and see themselves as the main beneficiaries. In this paper we attempt to resolve this seeming paradox by interpreting such agreements as insurance arrangements for smaller countries, which partially protect them against the consequences of a global trade war. What they offer to the large countries in return is largely non-trade benefits (such as restraints on domestic policies in the smaller countries, firmer intellectual property protection, firmer guarantees of royalty arrangements affecting resources on state-owned lands). When evaluated alongside the regional trade arrangements of the 1960's (such as the E.C.), these agreements may appear to produce little or no benefit relative to the status quo for smaller countries; but when evaluated relative to a post-retaliation tariff equilibrium, the value of these agreements to small countries is large because they help preserve existing access to larger foreign markets.

Pham, H.

PD July 1993. **TI** Optimal Hedging in Continuous Time with Futures and Forward Contracts in a Stochastic Interest Rate Environment. **AA** CREST and PARIS IX. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9350; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 21. **PR** no charge. **JE** G11, G12, G13. **KW** Hedging Strategies. Futures. Stochastic Interest Rate.

AB We consider an agent hedging a long position on an asset by continuously trading with futures and forward contracts on this asset and on Treasury bills. We integrate the risk and term structure of interest rates and examine two possibilities of financing of the asset and of the margin accounts incurred by futures prices changes: a financing plan with a rolling day to day interest rate or a financing plan with a period interest rate. Hedging strategies will depend on the financing. The asset is either a Treasury bond or a stock. A perfect hedging can be obtained for a Treasury bond by trading a single futures contract. However, because of the imperfect correlation between the interest rate and the stock price, a perfect hedge for the stock is not always possible with a single trading strategy on a futures or a forward contract. We give, in this case, optimal strategies with a single futures contract on the stock, which minimize a quadratic risk, precised later in the paper.

PD October 1993. **TI** Intertemporal Equilibrium Risk Premia in a Stochastic Volatility Model. **AU** Pham, H.; Touzi, N. **AA** Pham: CREST and PARIS IX. Touzi: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9349; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 24. **PR** no charge. **JE** D52, C62, G11. **KW** Incomplete

Markets. Stochastic Volatility.
AB This paper is concerned with incomplete market equilibrium models when incompleteness is due to stochastic volatility. Standard arbitrage arguments, in this context, imply that there are infinitely many state prices associated to an infinite set of risk premia. Considering two types of economies (with or without intermediate consumption), we provide a necessary and sufficient condition of the risk premia to be consistent with a multi-agent intertemporal additive equilibrium and we relate them to the agent's preferences. We show that the risk premia corresponding to the minimal martingale of Follmer-Schweizer are viable if and only if the agents' preferences are logarithmic, while the Hull-White's model (volatility risk premium independent of the asset price) is consistent with a class of utility functions including constant relative risk aversion (CRRA) ones.

Piketty, Thomas
TI Social Mobility and Corporate Development. **AU** Aghion, Philippe; Piketty, Thomas.

Pines, David
TI The Political Economy of Immigration. **AU** Cukierman, Alex; Hercowitz, Zvi; Pines, David.

Pinto, Jerald E.
PD February 1994. **TI** The Forecasting Performance of Balanced Funds, 1965-1985. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: S-94-3; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 23. **PR** not available. **JE** G10, G14, N20. **KW** Balanced Funds. Mutual Funds.
AB This study uses quarterly asset holdings information to examine the informational efficiency of forecasts of balanced mutual fund managers over the period 1965-1985. The main findings are that (1) their record in forecasting the sign and magnitude of the stock-bond relative return suggests the absence of private timing information; (2) success and failure in forecasting this relative return is randomly distributed over time; (3) the net-of-expenses returns for the average fund do not offer a marginal mean-variance improvement over a buy-and-hold investment in a matched benchmark. The evidence is consistent with the efficient markets conclusion of most earlier research using return data alone.

Pippenger, John
PD October 1993. **TI** Purchasing Power Parity, Unit Roots, and Dynamic Structure. **AU** Pippenger, John; Steigerwald, Douglas G. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 10-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 16. **PR** no charge. **JE** F30, C22. **KW** Purchasing Power Parity. Unit Roots. Error Correction Models.
AB Recent studies of purchasing power parity (PPP) account for the possible presence of unit roots in nominal exchange rates and relative price indices by applying standard unit-root tests to real exchange rates, which are ratios of nominal exchange rates and relative price indices. These studies occasionally find evidence of PPP, but as a whole, the evidence is not definitive. Standard unit-root tests impose a restrictive dynamic structure between nominal exchange rates and relative price indices. We specify and estimate a generalized dynamic structure.. We reject the dynamic restrictions implicit in standard unit-root tests of PPP, and find stronger evidence of PPP than do most other recent studies.

Pischke, Jorn-Steffen
PD November 1993. **TI** Individual Income, Incomplete Information and Aggregate Consumption. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-16; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 50. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** E21. **KW** Aggregate Consumption. Excess Sensitivity. Income Processes. Incomplete Information. Near-Rational Behavior.
AB Individual income is much more variable than aggregate per capita income. I argue that aggregate information is therefore not very important for individual consumption decisions and study models of life-cycle consumption in which individuals react optimally to their own incomplete process but have incomplete or no information on economy wide variables. Since individual income is less persistent than aggregate income consumers will react too little to aggregate income variation. Aggregate consumption will be excessively smooth. Since aggregate information is slowly incorporated into consumption, aggregate consumption will be autocorrelated and correlated with lagged income. On the other hand, the model has the same prediction for micro data as the standard permanent income model. The second part of the paper provides empirical evidence on individual and aggregate income processes and calibrates the model using the estimated parameters. The model predictions qualitatively correspond to the empirical findings for aggregate consumption but do not match them well in magnitude.

PD December 1993. **TI** Measurement Error and Earnings Dynamics: Some Estimates From the PSID Validation Study. **AA** Massachusetts Institute of Technology. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 94-1; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 16. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** C33, C51, C52. **KW** Panel Data. Reporting Error. Income. Covariance Structure Model. Minimum Distance Estimator.
AB Previous empirical work on measurement error in survey earnings data has shown that the variance of the measurement error is roughly constant over time, it is negatively correlated with true earnings, and it is autocorrelated with previous measurement errors. This paper proposes a simple model where the measurement error stems from underrreporting of transitory earnings fluctuations and a white noise component. The model fits well for data from the PSID Validation Study. While it implies that there will be some bias in estimates of variances and autocovariances these biases are of the same magnitude so that autocorrelations will be estimated roughly correctly.

PD January 1994. **TI** Wage and Employeemnt Effects of Immigration to Germany: An Analysis Based on Local Labor Markets. **AU** Pischke, Jorn-Steffen; Velling, Johannes. **AA** *Pischke: Massachusetts Institute of Technology. Velling:* Zentrum fur Europaische Wirtschaftsforschung (ZEW).

SR Massachusetts Institute of Technology Department of Economics Working Paper: 94-8; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 28. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** J61. **KW** Germany. Immigration. Local Labor Markets. Unemployment.
AB We analyze the impact of increased immigration on labor market outcomes of natives in Germany using a dataset of county level variables for the late 1980's. In order to construct more unified labor market regions, we aggregate the 328 counties to 167 larger regions. We study two measures of immigration, the change in the share of foreigners between 1985 and 1989 as well as one year gross and net flows of immigrants to an area. Especially for unemployment we find large effects of an increased foreign share. We conjecture that these results might be spurious. Foreigners tend to be concentrated in lower unemployment areas but unemployment tends to be mean reverting during the boom period we study. Taking account of the mean reversion in unemployment we find no detrimental effect of immigration. Similar results are obtained on the basis of one year flow data of foreigners. We also find no support for the hypothesis that the absence of displacement effects are due to a response of native migration patterns. The initial settlement of immigrants in Germany is largely independent of labor market conditions. Subsequent internal moves by foreigners are more responsive to local unemployment albeit much less than internal migration of natives.

Podivinsky, Jan M.

TI Cointegration Tests and Mean Shifts. **AU** Andrade, Isabel C.; O'Brien, Raymond; Podivinsky, Jan M.

Porter, Robert H.

TI Determinants of the Timing and Incidence of Exploratory Drilling on Offshore Wildcat Tracts. **AU** Hendricks, Kenneth; Porter, Robert H.

Portes, Richard

PD April 1994. **TI** Integrating the Central and East European Countries into the International Monetary System. **AA** Centre for Economic Policy Research and Birkbeck College. **SR** Centre for Economic Policy Research Occasional Paper: 14; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 18. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** F31, F33, F32, F34, O52. **KW** Eastern Europe. Exchange Rates. International Trade.
AB The Central and East European countries (CEEC's) have become increasingly diverse in their monetary and exchange rate policies since 1989. Their integration with the international monetary system (IMS) offers credibility to their domestic economic policies and a defense against pressures to return to the old ways. The Czech Republic, Hungary and Poland have maintained relatively stable nominal exchange rates, which with persistent inflation have brought a gradual but steady appreciation of their real exchange rates. Nevertheless, they have exhibited strong trade performance until 1993. Current account convertibility for residents should be made a high priority early in the transition: to import a new price structure, create competition and eliminate bureaucratic influence over allocation of foreign exchange. Capital account convertibility will take longer, since it requires positive real interest rates, realistic exchange rates and some depth in domestic financial markets.

Poterba, James M.

TI Employee Decisions with Respect to 401(k) Plans: Evidence From Individual-Level Data. **AU** Kusko, Andrea L.; Poterba, James M.; Wilcox, David W.

Poulsen, Annette

TI Asset Sales, Firm Performance, and the Agency Costs of Managerial Discretion. **AU** Lang, Larry; Stulz, Rene M.; Poulsen, Annette.

Prachowny, Martin

PD February 1994. **TI** Competition in the U.S. Labor Market. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 898; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 18. **PR** $3.00 + GST Canada; $3.50 U.S. and Foreign. **JE** E24, J32, J63. **KW** Employment Security. Vacancies. Quasi-Fixed Labor Costs.
AB Why do unemployed workers resist competing for jobs by offering to work for less than existing workers? Solow has posited a rational social norm that dictates against such behavior. Here the emphasis is on the barrier to competition presented by hiring and training costs that protect existing workers. Empirical evidence is presented for these costs (about $2,500 per year in the late 1980's) by measuring the opportunity cost of overtime hours in U.S. manufacturing industries. This protection also gives currently employed workers an incentive to raise wages-as long as continued employment is secure. They outnumber the unemployed who want lower wages by roughly 10 to 1. If wages are determined "democratically" the former group is able to slow down real wage reductions in recessions and speed up wage increases in booms, resulting in the usually observed asymmetrical movements around the natural rate of unemployment. By using an empirical labor-use curve, it is estimated that in 1987 a reduction of employment by about 1% (about 1.1 million workers) would have given an extra $114 per year to the remaining 111 million workers.

Prager, Jonas

TI The Suboptimality of Incentive Contracts in a Contracting Model. **AU** Paroush, Jacob; Prager, Jonas.

PD May 1994. **TI** Munificent Obsession: The Reluctant Nationalization and the Protracted Privatization of the Israeli Banking System. **AA** New York University. **SR** New York University Economic Research Report: 94-16; New York University, Faculty of Arts and Science, Department of Economics, 269 Mercer Street New York, N.Y. 10003. **PG** 27. **PR** no charge. **JE** L33, G28. **KW** Privatization.
AB Although Israel's major banks were bailed out by massive government loans in 1983, they passed into the government's hands only a decade later. Even then, ownership but not control was transferred. Selling the public's stake, which began in late 1993, has proceeded slowly, despite the government's intense desire to return the banks to private ownership. This study in political economy argues that the government's reluctance to nationalize as well as its protracted

privatization stems from the historic symbiotic relationship between the government and the leading banks. The partners' tactics of delay and obfuscation were designed to preserve the status quo ante. But when such maneuvers failed and reorganization became inevitable, minimalist reform was the preferred policy. It appears to have succeeded despite some internal resistance.

Praschnik, Jack

PD September 1992. **TI** The Role of Oil Price Shocks in a Two-Sector, Two Country Model of the Business Cycle. **AU** Praschnik, Jack; Costello, Donna M. **AA** Praschnik: University of Western Ontario. Costello: University of Florida. **SR** University of Western Ontario Department of Economics Research Report: 9208; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 19. **PR** Canada $5.00; Elsewhere $7.00. **JE** E32, F41. **KW** Business Cycles. Oil Price Volatility. Open Economy Macroeconomics.
AB We study the effects of oil price shocks in a two-sector, two-country, model of the international economy. The model predicts the observed high volatilities of oil consumptions at the sectoral and aggregate levels. It also predicts many of the observed volatilities relative to the volatility of output. At the international level, the model captures both the positive correlation of savings and investment and the observation that consumption is less correlated than output across countries. Some of our model's predictions at the sectoral level suggests that evaluating models of the international economy at just the aggregate level may be misleading.

PD January 1993. **TI** The Importance of Input Price Shocks for Business Cycles in Developing Economies. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9303; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 18. **PR** Canada $7.00; Elsewhere $9.00. **JE** E32, O11. **KW** Output Volatility. Productivity Shocks.
AB Stylized business cycle facts for a set of thirteen developing economies are documented and two salient features are uncovered. The relative volatilities of aggregate output's components are remarkably similar to those documented for industrialized economies, however, the volatility of aggregate output in developing economies is two to five times greater. Given these and other facts revealed, a model of the business cycle is constructed to reflect the structure of developing economies and the importance of relative price shocks and productivity disturbances for explaining aggregate fluctuations in these economies. The artificial economy demonstrates that relative price shocks are important for explaining the volatility of investment in developing economies, but productivity shocks remain important for the model's prediction of the correlations of all variables with aggregate output.

TI Intermediate Goods and the Transmission of International Business Cycles. **AU** Costello, Donna M.; Praschnik, Jack.

Puppe, Clemens

TI Continuous Extensions of an Order on a Set to the Power Set. **AU** Nehring, Klaus; Puppe, Clemens.

Qin, Cheng-Zhong

PD October 1993. **TI** Evolutionary Market Equilibrium in Bertrand and Cournot Settings. **AU** Qin, Cheng-Zhong; Stuart, Charles. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 9-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 30. **PR** no charge. **JE** C72, D21, D43. **KW** Evolutionary Economics. Evolutionary Stable Strategies. Betrand Equilibrium. Cournot Equilibrium.
AB We study economic evolution in classical duopoly and oligopoly settings. Evolution has two elements here: mutation within the population of price or quantity strategies played by firms; and natural economic selection of firms' strategies in favor of strategies that lead to higher expected profits. We show that the classical equilibrium proposed by Bertrand can be invaded by mutant strategies with price above the Bertrand price, but Cournot equilibrium resists all invasion. In Maynard Smith's (1972) terminology, Cournot strategies are evolutionary stable strategies, Bertrand strategies are not. More important, we characterize evolutionary market equilibrium under "replicator dynamics," that is, when the time derivative of the frequency of a strategy equals the strategy's relative expected profits. Under price-setting (Bertrand) behavior, replicator dynamics converge to a price above marginal and average variable costs; the price itself sometimes depends on initial conditions. Under quantity-setting (Cournot) behavior, replicator dynamics converge to the classical equilibrium proposed by Cournot.

TI Cores and Competitive Equilibria With Indivisibilities and Lotteries. **AU** Garratt, Rod; Qin, Cheng-Zhong.

PD May 1994. **TI** Bertrand vs. Cournot: An Answer 100 Years Later. **AU** Qin, Cheng-Zhong; Stuart, Charles. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 7-94; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 20. **PR** no charge. **JE** B13, C72, D43, L13. **KW** Cournot Equilibrium. Bertrand Equilibrium. Cournot Dynamics.
AB Bertrand criticized Cournot's analysis of equilibrium under oligopoly, arguing that firms should be seen as playing a strategy of setting price below competitors' prices (henceforth, the Bertrand strategy) instead of a strategy of accepting the price needed to sell an optimal quantity (the Cournot strategy). Consequently, there are two simple oligopoly models: Cournot's in which all firms play Cournot strategies; and Bertrands's in which all firms play Bertrand strategies. We characterize Nash equilibria in a generalized setting in which firms choose among Cournot and Bertrand strategies. We also show that, if iterated best responses converge in this setting, convergence is either to Cournot equilibrium or to an equilibrium in which price equals marginal cost and one or more firms play Bertrand strategies but these firms have zero sales. The latter equilibria may be interpreted as equilibria with "potential competition." For the duopoly case, we show that iterated best responses converge globally.

Quigley, Neil

TI What Can Univariate Models Tell Us About Economic Growth: 1870-1985? **AU** Evans, Lewis; Quigley, Neil.

Racine, Andrew D.

TI The Impact of Prenatal Exposure to Cocaine on Newborn

Costs and Length of Stay. **AU** Joyce, Theodore; Racine, Andrew D.; McCalla, Sandra; Wehbeh, Hassan.

Ramoo, Ratha T.

PD December 1993. **TI** Lessee Behavior Under a Resource Rent Tax. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 12-93; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 23. **PR** no charge. **JE** D40, H32, Q38. **KW** Resource Rent Tax Rate. Threshold Rate.

AB The resource rent tax is a proposed tax instrument for offshore oil and gas leases. Essentially, it is an ex post fiscal device levied on the investor's net cash flow after a specified threshold rate of return on his investment has been achieved. The tax base is obtained by using the specified threshold rate to compound forward the investor's net cash flow until a positive cumulative figure is reached. Subsequently, a resource rent tax is applied to the positive net present value as it is realized. While the resource rent tax rate is established by the government, the threshold rate of return may be determined in one of three ways. It could be fixed by the government, negotiated between the government and the investor, or it may be auctioned via competitive bidding. This paper is concerned with the incentive effects of the resource rent tax. More specifically, I examine the critical role played by property rights in the efficiency of the system. To this end, a partial equilibrium framework is employed to investigate how a resource is valued and how capital inputs are allocated by a firm under a resource rent tax. The model is used to analyze the impact of public regulation on private decision making and the results are compared with a system of competitive cash bonus bidding now used to award leases to federal tracts. My results support the broad proposition that alternative institutional arrangements are important to consequent enterprise conduct and performance. Where property rights are inhibited, as is the case under the resource rent tax, a direct connection between productivity and reward is severed and production will be less economically efficient. Further, the incentive to detect and police managerial conduct is also reduced. Ultimately, these potential perverse incentive effects of the resource rent tax reduce the value of the lease and lead to lower government revenue.

Randolph, William C.

TI Do Repatriation Taxes Matter? Evidence From the Tax Returns of U.S. Multinationals. **AU** Altshuler, Rosanne; Newlon, T. Scott; Randolph, William C.

Rappoport, Peter

TI The New York Stock Market in the 1920s and 1930s: Did Stock Prices Move Together Too Much? **AU** White, Eugene N.; Rappoport, Peter.

Ratliff, William

PD May 1994. **TI** Institutionalizing Independence from Moscow? **AA** Stanford University. **SR** Stanford Hoover Institution International Studies Working Paper: I-94-5; The Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 34. **PR** no charge. **JE** P26, F01, O54. **KW** Cuba, Soviet Union. Cold War.

AB

Rauch, James E.

PD February 1994. **TI** Balanced and Unbalanced Growth. **AA** University of California, San Diego and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4659; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 40. **PR** $5.00. **JE** E20, O41, F41, F43. **KW** Steady State. Endogenous Growth. Regional Interaction.

AB A mechanism of endogenous growth suitable for investigation of sectoral or regional interaction is developed. It is shown how the high value placed on production linkages by economic historians might be reconciled with the high value placed on openness (often implying lack of linkages) by observers of contemporary, less developed countries. When the output of one sector is traded and the output of the other is nontraded, it is shown how the traded goods sector acts as the "engine of growth" in the sense that its profitability of knowledge acquisition primarily determines the steady state aggregate growth rate. It is also shown how sectors or regions interact out of steady state through product, labor, and capital markets. In particular, if the former interaction dominates, the growth of one sector "pulls along" the growth of the other; if the latter two interactions dominate, one sector or region booms while the other declines. The paper builds on these results to show why liberalization of foreign trade should lead to a transition from a lower to a higher steady state growth rate and why, during the course of this transition, growth might initially be even slower than before liberalization. On this basis a reinterpretation of the post-1973 economic performance of Chile is offered. A final application to economic integration of previously separate regions or countries shows that the largest growth effects are to be had if one region is allowed to decline and provide a source of cheap labor for the other region.

Rausser, Gordon C.

PD February 1991. **TI** Burden Sharing and Public Good Provision: A Numerical Sensitivity Analysis. **AU** Rausser, Gordon C.; Simon, Leo K. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 637; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 52. **PR** $13.50. **JE** H41, H22. **KW** Taxation. Subsidies. Risk Aversion.

AB In this paper, the burden sharing of a subsidy reduction and the provision of a public good are analyzed through numerical sensitivity analysis. The variables being negotiated are: (1) the distribution of a tax burden among the alliance members; (2) the portion of total tax receipts that will be allotted to producing a public good that benefits the agricultural sector; and (3) the characteristics of this public good. In the negotiated determination of each of these three variables, we pay particular attention to the distribution of power between the agricultural alliance and the government. In the formal model, power assumed three different forms: access, risk aversion, and influence. These forms of power are considered separately, varying the power of both individuals and factions. Particular attention is paid to the effect of changing the balance of power between more and less communally-oriented members of an agricultural alliance.

PD September 1992. **TI** Burden Sharing and Public Good Investments in Policy Reform. **AU** Rausser, Gordon C.; Simon, Leo K. **AA** University of California, Berkeley.

SR University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 635; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 36. **PR** $10.00. **JE** Q18, H41, C78. **KW** Agricultural Policy. Trade Negotiation. Policy Reform.
AB This paper heuristically examines the reform of agricultural policies from the lens of a noncooperative, multilateral bargaining game. The framework developed is a customized specialization of the abstract theoretical model specified in Rausser and Simon (1991). The levels of negotiation include the distribution of burden, the amount of a public good, and its location. The dimensions of the model rare formalized, paying particular attention to various components of political power. Components of political include access, influence, risk aversion, default utility, and strategic positioning.

TI A Framework for Analyzing Specific Agricultural Policy Reform. **AU** Just, Richard E.; Rausser, Gordon C.; Zilberman, David.

TI Can Futures Trading Play a Role in China's Land Allocation and Food Security Policy? **AU** Liu, Jianmin; Rausser, Gordon C.

TI Governance Structures and the Durability of Economic Reforms: Evidence from Inflation Stabilizations. **AU** Ball, Richard; Rausser, Gordon C.

TI Disruption and Continuity in Bulgaria's Agrarian Reform. **AU** Lyons, Robert F.; Rausser, Gordon C.; Simon, Leo K.

Ravenscraft, David J.

TI The Financial Performance of Whole Company LBO's. **AU** Long, William F.; Ravenscraft, David J.

Rebelo, Sergio

TI Policy, Technology Adoption and Growth. **AU** Easterly, William; King, Robert G.; Levine, Ross; Rebelo, Sergio.

Reid, Brian

TI The Empirical Properties of a Monetary Aggregates That Adds Bond and Stock Funds to M2. **AU** Orphanides, Athanasios; Reid, Brian; Small, David.

Reinelt, Peter

TI Alternatives for Managing Drought: A Comparative Cost Analysis. **AU** Fisher, Anthony C.; Fullerton, David; Hatch, Nile; Reinelt, Peter.

Reinhart, Carmen M.

PD January 1994. **TI** Commodity Prices: Cyclical Weakness or Secular Decline? **AU** Reinhart, Carmen M.; Wickham, Peter. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/7; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 23. **PR** not available. **JE** C22, E30, E61. **KW** Commodity Prices.
AB Primary commodities still account for the bulk of exports in many developing countries. However, real commodity prices have been declining almost continuously since the early 1980's, and there is evidence of renewed weakness. The appropriate policy response to a terms of trade shock depends importantly on whether the shock is perceived to be temporary or permanent. Our results indicate that the recent weakness in commodity prices is mostly of a secular nature, stressing the need for commodity exporting countries to concentrate on export diversification and other structural policies. There is, however, scope for stabilization funds and the use of hedging strategies since the evidence also suggests commodity prices have become more volatile.

TI The Macroeconomic Determinants of Commodity Prices. **AU** Borensztein, Eduardo; Reinhart, Carmen M.

Renault, E.

PD October 1993. **TI** Option Hedging and Implicit Volatilities in a Stochastic Volatility Model. **AU** Renault, E.; Touzi, N. **AA** Renault: Universite de Toulouse I. Touzi: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9339; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 26. **PR** no charge. **JE** G13, G11. **KW** Options. Stochastic Volatility Model.
AB Assuming that the true distribution of the underlying asset prices is defined by a stochastic volatility model (Hull-White 1987), we define a new concept of hedging volatility, and we examine the impact of stochastic volatility on the Black-Scholes (1973) implicit volatility based (partial) hedging. It is shown that the usual hedging methods lead to (i) an under-hedged position for in-the-money options, (ii) an over-hedged position for out-of-the money options, (iii) a perfect partially hedged position for at-the-money options. These results provide a theoretical explanation to the smile effect as a direct consequence to the stochastic feature of the volatility. In order to estimate the correct hedge ratios, we propose an iterative statistical procedure which provides simultaneously filtered values of the volatility process realizations. We prove the (strong) consistency of this estimator and we characterize its asymptotic distribution.

TI Long Memory Continuous Time Models. **AU** Comte, F.; Renault, E.

Rey, Patrick

PD January 1994. **TI** The Role of Exclusive Territories in Producers' Competition. **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: 4618; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** $5.00. **JE** D21, L12, L42. **KW** Vertical Restraints. Exclusive Territories.
AB The central objective of this paper is to show how vertical restraints, which affect intra-brand competition, can and will be used as an effective mechanism for reducing inter-brand competition and increasing producer profits. We show how exclusive territories alter the perceived demand curve, making each producer believe he faces a less elastic demand curve, thereby inducing an increase of the equilibrium price. The use of exclusive territories may increase producers' profits, even if the producers cannot charge franchise fees, and so cannot recapture, from the retailers, the monopoly rents they earn from their exclusive territory. We show that "double marginalization" effects can be overcome by the strategic effect

on producers' competition. We provide a model in which we can clearly specify the full range of feasible contracts between producers and retailers show that it is always a dominant strategy for firms to use exclusive territories and that the best situation from the producers' viewpoint may or may not entail franchise fees. In all cases, exclusive territories hurt consumer surplus and reduce total welfare, which yields a different light on vertical restraints from a competition policy perspective.

Rice, Patricia

PD December 1993. **TI** Post-War Trends in Part-Time Employment: A Survey. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9323; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 42. **PR** no charge. **JE** J21, J60. **KW** Part-time Employment. Women's Employment Patterns.

AB Over the last four decades, part-time employment as a proportion of total employment in Great Britain has increased more than five-fold from just 4 percent to nearly 25 percent. This paper examines the growth in part-time employment in Great Britain and in the other major industrialized countries. The paper identifies the factors on both the supply-side and the demand-side of the labor market and have contributed to this transformation on the pattern of employment.

Richardson, Ray

PD September 1993. **TI** Hayek on Trade Unions: Social Philosopher or Propagandist? **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 178; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 23. **PR** no charge. **JE** B31, J51. **KW** Unemployment. Unions. British Economy. Management.

AB Friedrich Hayek wrote frequently on the consequences of trade unions, usually highly critically, making claims about their very adverse economic and social impact. A close analysis of his work demonstrates that his judgements do not rest on a theory of trade unions which is clearly different from a conventional treatment; nor does he anywhere present any relevant new empirical work. Further, his methodological writings seem to disbar him from making the kind of empirical claims on trade unions that feature throughout his writings. The conclusion is that he was morally so offended by the extraordinary legal immunities which the trade unions had acquired that his judgement deserted him, such that he descended into a series of wholly untenable empirical assertions. His significant influence on thinking and policy on industrial relations matters, at least in the UK, looks to have been based far more on powerful emotions than on science.

Ritter, Joseph A.

PD February 1994. **TI** The Transition From Barter to Fiat Money. **AA** Federal Reserve Bank of St. Louis. **SR** Federal Reserve Bank of St. Louis Working Paper: 94-004A; Research and Public Information Division, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. **PG** 30. **PR** no charge. **JE** E42. **KW** Barter. Fiat Money. Search Theory.

AB How did it become possible to exchange apparently valueless pieces of paper for goods? This paper provides an equilibrium account of the transition between barter and fiat money regimes. The explanation relies on the intervention of a self-interested government which must be able to promise credibly to limit the issue of money. To achieve credibility, the government must offset the benefits of seigniorage by internalizing some of the macroeconomic externalities generated by the issue of fiat money. The government's patience and the extent of its involvement in the economy are key determinants of whether the transition can be accomplished.

Rivard, Brian

PD November 1992. **TI** Monopolistic Competition, Increasing Returns and Self-Fulfilling Prophecies. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9308; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 16. **PR** Canada $7.00; Elsewhere $9.00. **JE** L13, C62, D90, E32. **KW** Sunspot Equilibrium. Business Cycles. Overlapping Generations.

AB This paper constructs a simple overlapping generations model with money and production in an environment of monopolistically competitive firms and an increasing returns to scale production technology. Within this framework symmetric stationary sunspot equilibria are generated without requiring the assumption of gross complementarity between future consumption and current leisure. Output fluctuations may also be highly persistent in this model.

Robert, C. P.

TI Testing for Mixtures: A Bayesian Entropic Approach. **AU** Mengersen, K. L.; Robert, C. P.

PD 1993. **TI** Convergence Assessments for Markov Chain Monte-Carlo Methods. **AA** Universite de Rouen and CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9347; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 22. **PR** no charge. **JE** C15. **KW** Convergence Properties. Gibbs Sampling. Missing Data.

AB The use of Markov Chain Monte-Carlo methods has considerably increased since their introduction by Gelfand and Smith (1990). However, while the width and variety of Markov Chain Monte-Carlo applications are properly astounding, little progress has been made in the control of convergence properties for these algorithms, despite their relevance in practical implementations. We present here different approcaches towards a partial control of these algorithms based on functional and mixing theories, while paying a particular attention to the Central Limit Theorem and the approximation of the limiting variance. For instance, we stress the use of the Law of the Iterated Logarithm for the estimation of the variance. Renewal theory seems, however, to be the most promising technique in this regard and we illustrate its potential in a trimodal Cauchy example. Many convergence properties can also be derived from the study of simpler Markov chains produced by Markov Chain Monte-Carlo algorithms, due to a Duality Principle obtained in Diebolt and Robert (1994) for mixture estimation.

PD 1993. **TI** Intrinsic Losses. **AA** Universite de Rouen and CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9348; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 14.

PR no charge. **JE** C10, C15. **KW** Loss Function. Entropy Loss. Robust Inference.
AB Since the choice of a particular loss function strongly influences the resulting inference, it seems necessary to rely on "intrinsic" losses when no information is available about the utility function of the decision-maker, rather than to call for classical losses like the squared error loss. These intrinsic loss functions only depend on the sampling distribution and are independent of the parametrization of the distribution. The resulting estimators are therefore transformation equivariant. We study the properties of two of these losses, entropy and Hellinger losses, and show that they can be expressed in closed form for exponential families. Moreover, the entropy loss also provides analytical expressions of Bayes estimators under conjugate priors; the derivation of Bayes estimators associated with the Hellinger loss is more cumbersome, as shown in Poisson and Gamma cases, while leading to similar estimators.

PD 1994. **TI** Maximum Likelihood Estimation of Order Restricted Parameters: A Bayesian Approach. **AU** Robert, C. P.; Hwang, J. T. Gene. **AA** Robert: Universite de Rouen and CREST. Hwang: Cornell University. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9409; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 10. **PR** no charge. **JE** C13, C11. **KW** Bayes Estimators. Gibbs Sampling. Order Restriction.
AB Algorithms for deriving isotonic regression estimators and other restricted maximum likelihood estimators are usually quite dependent on the particular problem considered. We propose here a method based on a sequence of Bayes estimates whose variances converge to 0. This method can be applied "universally", i.e. as long as Bayes estimators can be derived by exact computation of Markov Chain Monte-Carlo sampling approximation. We then give an illustration of our method for two real-life examples.

PD 1994. **TI** Mixtures of Distributions: Inference and Estimation. **AA** Universite de Rouen and CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9413; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 16. **PR** no charge. **JE** C11, C13. **KW** Bayesian Analysis. Mixture Model. Simulation Methods.
AB Mixtures of classical distributions like the normal or the Poisson distributions take advantage of the manageable aspects of these distributions to extend the parametric framework to more complex structures. Their appeal goes beyond the mere modeling of heterogeneous populations with homogeneous subgroups as in discrimination and outlier detection, since this modeling covers a wide range reaching towards nonparametric statistics. This review presents the Bayesian approach to the estimation of the parameters of a mixture of distributions from an exponential family. It then introduces more inferential aspects like testing for the number of components in a mixture model or estimating infinite mixtures via Dirichlet processes.

TI Intrinsic Losses for Empirical Bayes Estimation: A Note on Normal and Poisson Cases. **AU** Fourdrinier, D.; Robert, C. P.

Roberts, Mark J.
TI The Long-Run Demand for Labor: Estimates From Census Establishment Data. **AU** Dunne, Timothy; Roberts, Mark J.

Roberts, Mike
TI Natural Resource Prices: Will They Ever Turn Up? **AU** Berck, Peter; Roberts, Mike.

Robertson, Donald
PD November 1993. **TI** Real Interest Rates and Index Linked Gilts. **AU** Robertson, Donald; Symons, James S.V. **AA** Robertson: London School of Economics and London Business School. Symons: London School of Economics and University College London. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 181; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 26. **PR** no charge. **JE** E43, E44. **KW** Risk Issues. Real Interest Rates.
AB This paper derives the ex ante paths of the future expected short (one period) real interest rates at quarterly frequency from observations on the prices of a set of UK index linked bonds. These rates are used to investigate the impact of monetary policy and the nature of expectations formation in the bond market.

Robertson, J. Fiona
TI Testing Dividend Signalling Models. **AU** Bernhardt, Dan; Robertson, J. Fiona; Farrow, Ray.

Robin, J. M.
TI An Iterated Moment Estimator for Conditionally Linear Equation Systems: A Note. **AU** Blundell, R.; Robin, J. M.

TI Simulation of Indirect Tax Reforms Using Pooled Micro and Macro French Data. **AU** Nichele, V.; Robin, J. M.

Rogers, John H.
TI Relative Returns on Equities in Pacific Basin Countries. **AU** Engel, Charles; Rogers, John H.

Rogoff, Kenneth
TI Exchange Rate Dynamics Redux. **AU** Obstfeld, Maurice; Rogoff, Kenneth.

Romano, M.
PD September 1993. **TI** Contingent Claims and Market Completeness in a Stochastic Volatility Model. **AU** Romano, M.; Touzi, N. **AA** Romano: Universite Paris IX. Touzi: CREST. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9338; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 17. **PR** no charge. **JE** G13, G11. **KW** Incomplete Markets. Options. Contingent Claims.
AB In the last few years, empirical evidence showed a lot of interest in stochastic volatility models. However, these models raise some theoretical questions related to market incompleteness. In this paper, we show that any European option completes the market in a stochastic volatility model (with correlated risks). This result is then used for the valuation of American options. We study some properties of the put option price and the optimal stopping boundary, which allow us to prove that any American option completes the market in the continuation region. Finally, we suggest a preference relation, between contingent claims, from a hedging point of view.

Rose, Andrew K.

PD January 1994. **TI** Exchange Rate Volatility, Monetary Policy, and Capital Mobility: Empirical Evidence on the Holy Trinity. **AA** Rose: University of California, Berkeley and Centre of Economic Program Research and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4631.; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** C33, E42, F21, F31. **KW** Exchange Rate Volatility. Capital Mobility. Holy Trinity.
AB This paper uses a panel of data from twenty-two countries between 1967 and 1992 to explore the tradeoff between the "Holy Trinity" of fixed exchange rates, independent monetary policy, and capital mobility. I use: flexible- and sticky-price monetary exchange rate models to parameterize monetary divergence; factor analysis to extract measures of capital mobility from a variety of different indicators; and conditional exchange rate volatility to measure the degree to which the exchange rate is fixed. Exchange rate volatility is loosely linked to both monetary divergence and the degree of capital mobility. Interestingly, exchange rate volatility is significantly correlated with the width of the explicitly declared exchange rate band, even after taking monetary divergence and capital mobility into account.

Rosenwald, F.

TI Evidence on Corporate Private Debt Finance and the Term Structure of Interest Rates. **AU** Bronsard, C.; Rosenwald, F.; Salvas-Bronsard, L.

Rotemberg, Julio J.

PD February 1994. **TI** Is the Business Cycle a Necessary Consequence of Stochastic Growth? **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: 4650; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 38. **PR** $5.00. **JE** E27, E32, E37. **KW** Growth Model. Output. Consumption. VAR.
AB We compute the forecastable changes in output, consumption, and hours implied by a VAR that includes the growth rate of private value added, the share of output that is consumed, and the detrended level of private hours. We show that the size of the forecastable changes in output greatly exceeds that predicted by a standard stochastic growth model of the kind studied by real business cycle theorists. Contrary to the model's implications, forecastable movements in labor productivity are small and only weakly related to forecasted changes in output. Also, forecasted movements in investment and hours are positively correlated with forecasted movements in output. Finally, and again in contrast to what the growth model implies, forecasted output movements are positively related to the current level of the consumption share and negatively related to the level of hours. We also show that these contrasts between the model and the observations are robust to allowance for measurement error and a variety of other types of transitory disturbances.

Rubinstein, Ariel

TI A Simple Model of Equilibrium in Search Procedures. **AU** Fershtman, Chaim; Rubinstein, Ariel.

Rubio, Santiago J.

PD February 1994. **TI** Optimal Capital Accumulation and Stock Pollution: The Greenhouse Effect. **AU** Rubio, Santiago J.; Fisher, Anthony C. **AA** Rubio: University of Valencia, Spain. Fisher: University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 705; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 30. **PR** $9.00. **JE** Q25, E22, O41. **KW** Carbon Dioxide. Damage Function. Air Pollution.
AB In this paper two models are presented to study the relationship between capital accumulation and stock pollution focusing on the greenhouse effect. In the first model we assume a constant population and we analyze pollution control through choice of capital stock level. In that model carbon dioxide emissions depend on the stock of productive capital and the stock of carbon dioxide emissions has a negative effect on production through a damage function. The second is a Harrod-neutral technological progress model of optimal growth with increasing population and emission abatement capital. For an economy with constant population the existence of a steady state with stable emissions is guaranteed under the assumption of concavity of the utility and production functions. For an economy with growing population, the saturation of preferences is necessary although not sufficient.

Rudebusch, Glenn D.

TI Measuring Business Cycles: A Modern Perspective. **AU** Diebold, Francis X.; Rudebusch, Glenn D.

TI Judging Instrument Relevance in Instrumental Variables Estimation. **AU** Hall, Alastair R.; Rudebusch, Glenn D.; Wilcox, David W.

Rush, Mark

TI The Marginal Income Tax Rate Schedule From 1930 to 1990. **AU** Hakkio, Craig S.; Rush, Mark; Schmidt, Timothy J.

PD January 1994. **TI** The Role of the Discount Rate in Monetary Policy. **AU** Rush, Mark; Sellon, Gordon; Zhu, Li. **AA** Rush and Zhu: University of Florida. Sellon: Federal Reserve Bank of Kansas City. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 94-01; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 35. **PR** no charge. **JE** E52, E40. **KW** Discount Rate. Monetary Policy.
AB Most discussions of monetary policy are somewhat ambivalent about the role of the discount rate. Based on frequency of use, for example, the discount rate would appear to be far less important than open market operations as a policy instrument. Moreover, empirical research on monetary policy tends to overlook the discount rate, as reduced-form studies of monetary policy rarely include the discount rate as a measure of policy actions. In contrast, however, textbook discussions of monetary policy treat the discount rate as one of the Federal Reserve's three principal policy tools. And, in practice, discount rate changes are far more "public " than policy changes implemented through open market operations, and discount rate changes are frequently associated with large movements in market interest rates and other asset prices. Is the discount rate really an important policy tool or is it merely a sideshow to monetary policy? And, if discount rate changes

have little policy significance, what purpose do they serve? This paper examines the role that the discount rate has played in monetary policy over the twenty year period from 1974 to 1993. This period is unique because, during this time, the Federal Reserve changed its operating procedures three times - from interest rate targeting (pre-October 1979), to nonborrowed reserve targeting (October 1979 to late 1982), to borrowed reserve targeting (1983 to late 1988), and back to interest rate targeting (late 1989). The variety of policy regimes allows us to determine whether the role of the discount rate depends systematically on the form of Fed operating procedures as suggested in the literature on discount rate announcement effects.

TI The Effect of Changes in Reserve Requirements on Investment and GNP. **AU** Loungani, Prakash; Rush, Mark.

Saint-Paul, Gilles
TI Uncovering Some Causal Relationships Between Productivity Growth and the Structure of Economic Fluctuations: A Tentative Survey. **AU** Aghion, Philippe; Saint-Paul, Gilles.

Sala-i-Martin, Xavier
TI Quality Improvements in Models of Growth. **AU** Barro, Robert J.; Sala-i-Martin, Xavier.

Salvas-Bronsard, L.
TI Evidence on Corporate Private Debt Finance and the Term Structure of Interest Rates. **AU** Bronsard, C.; Rosenwald, F.; Salvas-Bronsard, L.

Samiei, Hossein
PD January 1994. **TI** Real Estate Price Inflation, Monetary Policy, and Expectations in the United States and Japan. **AU** Samiei, Hossein; Schinasi, Garry J. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/12; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 18. **PR** not available. **JE** R21, R32, D84, E51, E52, C12, C13. **KW** Real Estate Market. Maximum Likelihood.
AB During the mid- to late 1980's, inflationary pressures were highly concentrated in asset markets in many industrial countries. This paper discusses why this may have occurred and then develops a forward-looking supply and demand model of the real estate market in which equilibrium prices depend on price expectations, monetary conditions, income, returns to alternative assets, and construction costs. In this model, the current equilibrium price is determined by expectations formed in different time periods by consumers and producers. The model and its more generalized dynamic specifications are estimated by maximum-likelihood methods. The empirical results do not reject the view that the relationship between real estate values and monetary policy was altered in 1980's.

Scacciavillani, Fabio
PD January 1994. **TI** Long Memory Processes and Chronic Inflation: Detecting Homogeneous Components in a Linear Rational Expectation Model. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/2; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 20. **PR** not available. **JE** C22, E31, E58. **KW** Money and Inflation. Asset Price Bubbles. Rational Expectations.
AB This paper is an empirical study of the links between monetary variables and inflation, based on Cagan's equation and its rational expectations solution, when the forcing variable is a fractionally integrated process. As demonstrated by Hamilton and Whiteman (1985), the existence of bubbles and other extraneous influences can be detected only by verifying the difference in the order of integration between the monetary base and the price level series. This paper shows that a fractionally differenced model overcomes Evans' (1991) critique of this test and that chronic inflation is essentially a monetary phenomenon caused by fiscal imbalance.

Scaillet, O.
TI Estimation of the Term Structure from Bond Data. **AU** Gourieroux, C.; Scaillet, O.

Schaffer, Mark S.
TI Government Financial Transfers and Enterprise Adjustments in Russia, with Comparisons to Central and Eastern Europe. **AU** Fan, Qimiao; Schaffer, Mark S.

Schaller, Huntley
TI Why Does Liquidity Matter in Investment Equations? **AU** Chirinko, Robert S.; Schaller, Huntley.

Scharfstein, David S.
TI Capital Market Imperfections and Countercyclical Markups: Theory and Evidence. **AU** Chevalier, Judith A.; Scharfstein, David S.

Schieber, Sylvester J.
PD March 1994. **TI** The Consequences of Population Aging on Private Pension Fund Saving and Asset Markets. **AU** Schieber, Sylvester J.; Shoven, John B. **AA** Schieber: Wyatt Company. Shoven: Stanford University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4665; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** J11, H55, G12. **KW** Demographic. Social Security. Asset Prices.
AB This paper examines the impact of the aging demographic structure of the U.S. on its funded private pension system. A 75-year outlook is produced for the pension system corresponding to the 75-year forecast of the Social Security system. The primary result is that the pension system will cease being a source of national saving in the third decade of the next century. The paper speculates about the impact this may have on asset prices.

Schinasi, Garry J.
TI Real Estate Price Inflation, Monetary Policy, and Expectations in the United States and Japan. **AU** Samiei, Hossein; Schinasi, Garry J.

PD March 1994. **TI** Asset Prices, Monetary Policy, and the Business Cycle. **AA** International Monetary Fund. **SR** International Monetary Fund Papers on Policy Analysis and Assessment: PPAA/94/6; International Monetary Fund, Washington, DC 20431. **PG** 20. **PR** not available. **JE** E31, E44, G21. **KW** Business Cycles. Asset Prices. Private Debt. Structural Change.
AB The business cycle in several industrial countries during

the period 1989-1993 was different from previous post World War II business cycles in important ways. This paper describes the unique character of the recent cycle, examines important underlying structural and macroeconomic factors, and discusses why these unique features emerged. Although many of the structural changes were partly responsible for the overshooting of asset prices and private debt levels, the extreme overshooting could not have occurred without overexpansionary monetary and fiscal policies. The paper examines why inflationary pressures were allowed to accumulate and then discusses a number of lessons for conducting economic policy in the 1990's.

Schmidt, Timothy J.

TI The Marginal Income Tax Rate Schedule From 1930 to 1990. **AU** Hakkio, Craig S.; Rush, Mark; Schmidt, Timothy J.

Schnure, Calvin D.

PD April 1994. **TI** Debt Maturity Choice and Risk-Free Assets: The "Clientele Effect" and the Commercial Paper Market. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-4; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 31. **PR** no charge. **JE** G32, G30. **KW** Commercial Paper. Liquidity. Default Risk.

AB This paper models a firm's issuance of commercial paper (CP) as a strategy to lower its borrowing costs by taking advantage of a "clientele effect" in the demand for safe assets. The firm is willing to expose itself to liquidity risk in order to enjoy the savings on borrowing costs. A primary feature of the model is that the CP market is driven by public information because of the need to make the securities attractive to a cash management clientele. We examine characteristics of both issuers and purchasers of CP that lend support to the clientele hypothesis.

Schoeni, Robert F.

TI Transfer Behavior: Measurement and the Redistribution of Resources Within the Family. **AU** McGarry, Kathleen; Schoeni, Robert F.

Scott, Andrew

TI Seasonality in Dynamic Regression Models. **AU** Harvey, Andrew; Scott, Andrew.

Sellon, Gordon

TI The Role of the Discount Rate in Monetary Policy. **AU** Rush, Mark; Sellon, Gordon; Zhu, Li.

Sengupta, Jati K.

PD May 1994. **TI** Convergence to Steady State Growth: A Model for Japan (1965-90). **AU** Sengupta, Jati K.; Okamura, Kumiko. **AA** Sengupta: University of California, Santa Barbara. Okamura: Institute of Statistical Mathematics, Tokyo, Japan. **SR** University of California at Santa Barbara Department of Economics Working Paper: 6-94; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 23. **PR** no charge. **JE** C32, C51, E13. **KW** Steady State Growth. Optimal Path of Adjustment. Speed of Convergence.

AB A model of convergence to steady state growth is specified here in terms of deviations from a steady state demand for inputs and estimated for Japan for the period 1965-90. The estimated results provide econometric tests for the speed of convergence, returns to scale, the contribution of capital and female labor and the importance of forward looking expectations.

Serandon, A.

TI Evaluating the Impact of French Employment Policies on Individual Labour Market Histories. **AU** Bonnal, L.; Fougere, D.; Serandon, A.

Sharpe, Steven A.

TI Capital Market Imperfections and the Incentive to Lease. **AU** Nguyen, Hien H.; Sharpe, Steven A.

TI Rents and Quasi-Rents in the Wage Structure: Evidence From Hostile Takeovers. **AU** Neumark, David; Sharpe, Steven A.

Shen, Pu

PD December 1993. **TI** Pricing Bid-Ask Spreads in Common Stocks, Liquidity Premium and the Small Firm Effect. **AA** Federal Reserve Bank of Kansas City. **SR** Federal Reserve Bank of Kansas City Research Working Paper: 93-19; Research Division, Federal Reserve Bank of Kansas City, 925 Grand Ave., Kansas City, MO 64198. **PG** 30. **PR** no charge. **JE** G10, E31. **KW** Stocks. Bid-Ask Spreads. Firms.

AB In this paper, the effect of bid-ask spreads on equilibrium asset returns is assessed empirically. Bid-ask spreads, as parts of transaction costs, is a measure of the liquidity of financial assets which is one of the decision variables for investors. It is found that bid-ask spreads are reflected in the equilibrium asset returns and there is a significant liquidity premium in asset prices to cover the transaction cost differentials. Further, it is found that once the bid-ask spread is included in the regressions, the "small firm effect" disappears entirely. "Small firm effect" refers to the empirical findings that a portfolio of small firm stocks typically has higher returns than a portfolio of large firm stocks. The finding in this paper provides empirical evidence that the so-called "anomaly" is due to the misspecification of the model. When the bid-ask spread is missing from the model, firm size becomes a proxy for the missing variable and therefore is significant. Once the effect of transaction cost is properly accounted for, firm size becomes irrelevant.

Shoven, John B.

TI The Consequences of Population Aging on Private Pension Fund Saving and Asset Markets. **AU** Schieber, Sylvester J.; Shoven, John B.

Siebert, Jerome B.

PD April 1994. **TI** Marketing California Walnuts. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 676R; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 18. **PR** $5.00. **JE** Q13. **KW** Walnut Industry. Agricultural Exports. Marketing.

AB Currently, California dominates world production and trade in walnuts. Its efficient production, processing, and marketing methods have stimulated and expanded markets on a worldwide basis. Through aggressive marketing and promotion by handlers, demand for California walnuts has expanded. Programs financed by the Walnut Marketing Board and California Walnut Commission have added to this demand stimulation, particularly in export markets. The California walnut industry will need to continue to sharpen its skills in marketing, particularly if U.S. production continues to rise, and increased supplies appear in export markets. While many factors influence the sale of walnuts, the ability to consistently deliver a high-quality product at a competitive price will be important. Changes in multilateral trading rules and regulations such as GATT and NAFTA can have significant impact on the California walnut industry. As changes take place in the world, the California walnut industry needs to be able to adjust its programs to take advantage of opportunities.

Silva, Fabio

PD March 1994. **TI** Did Serrano Cause a Decline in School Spending? **AU** Silva, Fabio; Sonstelie, Jon. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 3-94; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 18. **PR** no charge. **JE** H72, I22. **KW** Equalization. Educational Expenditures. School Finance.
AB Compared to the national average, California's public school spending fell by 23% from 1970 to 1990. About half of the decline can be attributed to Serrano v. Priest, the 1971 California Supreme Court ruling that required equal spending per pupil across school districts in the State. The remainder can be attributed to the rapid enrollment growth in California during the 1980's.

Silvestre, Joaquim

PD April 1994. **TI** Market Power in Macroeconomic Models: New Developments. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 94-07; Department of Economics, University of California at Davis, CA 95616-8578. **PG** 51. **PR** $3.00 U.S. and Canada. $4.00 International. **JE** E10, E24, E32, D43, D50. **KW** Macroeconomics. Market Power. Imperfect Competition. Business Cycles.
AB The text surveys some recent work on the market-power foundations of macroeconomics. Earlier efforts in the area, as represented in Silvestre (Journal of Economic Literature, 1993), built models that were static or that adopted the temporary equilibrium viewpoint. The more recent literature, on the contrary, is cast in general equilibrium models that are explicitly dynamic. A first group of papers adopts infinite overlapping generation models and addresses three topics. First, the possibility of unemployment at all wages, which had previously appeared in temporary equilibrium models. Second, the effects of a government policy that redistributes wealth from young to old, or supplies public output, financed by taxes or money creation. Third, the rationality of partial wage indexation. A second group of papers attempts to understand economic fluctuations as equilibrium phenomena in models with market power in the output markets and wage taking. Their method is the introduction of price-setting behavior in models of real business cycles, neoclassical growth, or overlapping generations.

Simard, Dominique

TI France and the Bretton Woods International Monetary System: 1960 to 1968. **AU** Bordo, Michael D.; Simard, Dominique; White, Eugene N.

Simon, Leo K.

TI Burden Sharing and Public Good Provision: A Numerical Sensitivity Analysis. **AU** Rausser, Gordon C.; Simon, Leo K.

TI Burden Sharing and Public Good Investments in Policy Reform. **AU** Rausser, Gordon C.; Simon, Leo K.

TI Disruption and Continuity in Bulgaria's Agrarian Reform. **AU** Lyons, Robert F.; Rausser, Gordon C.; Simon, Leo K.

Simpson, Bob

TI Union Negotiators, Industrial Action and the Law: Report of a Survey of Negotiators in Twenty Five Unions 1991-1992. **AU** Elgar, Jane; Simpson, Bob.

Sindelar, Jody L.

TI Health, Income, and Risk Aversion: Assessing Some Welfare Costs of Alcoholism and Poor Health. **AU** Mullahy, John; Sindelar, Jody L.

Singh, Subansh P.

TI Inter-Temporal and Cross-Section Variations in Technical Efficiency in the Indian Railways. **AU** Jha, Raghbendra; Singh, Subansh P.

Small, David

TI The Empirical Properties of a Monetary Aggregates That Adds Bond and Stock Funds to M2. **AU** Orphanides, Athanasios; Reid, Brian; Small, David.

TI Estimating the Interest Sensitivity of Liquid Retail Deposit Values. **AU** O'Brien, James; Orphanides, Athanasios; Small, David.

Smith Lones

TI The Folk Theorem for Repeated Games: A NEU Condition. **AU** Abreu, Dilip; Dutta, Prajit K.; Smith Lones.

Smith, Gregor W.

TI Measuring Business Cycles with Business-Cycle Models. **AU** Gregory, Allan W.; Smith, Gregor W.

Smith, Peter

PD December 1993. **TI** The Flexibility of National Economies in Response to the Oil-Price Shocks. **AU** Smith, Peter; Ulph, Alistair. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9322; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 57. **PR** no charge. **JE** Q43, O10, O57. **KW** Flexibility. Oil Price Shocks. Energy-Adjustment.
AB Commentators frequently refer to the differences in the flexibility with which national economies respond to exogenous shocks. In this paper we attempt to analyze such differences in the context of the oil-price shocks of the 1970's and 1980's. We

analyze flexibility at the level of individual agents and at the level of the whole economy. At the individual level, we discuss how we might assess flexibility of response, drawing on recent developments in microeconomic theory, and test this against data on energy demand and supply response in a number of developing countries. At the economy-wide level, we analyze the factors which might affect a country's flexibility, and develop a general empirical index of differences in flexibility. We then study the macroeconomic responses to oil-price shocks, and show that country differences in response correspond quite closely to differences in the general index of flexibility.

Smith, R. J.

PD December 1993. **TI** Consistent Tests for the Encompassing Hypothesis. **AA** University of Cambridge. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 9403; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris Cedex 14, FRANCE. **PG** 27. **PR** no charge. **JE** C12. **KW** Likelihood Ratio Test. Consistent Tests.

AB The Encompassing Hypothesis for discriminating between two competing parametric hypotheses for the conditional density of a random vector is considered in the presence of another (unknown) true hypotheses; such rival models may be either non-nested or nested. In such *circumstances, the Wald and Score Encompassing Test statistics* suffer from a number of disadvantages. Both statistics require the consistent estimation of the g-inverse of a matrix whose rank is generally unknown and, moreover, neither may provide consistent tests of the encompassing hypotheses. This paper proposes statistics for testing the encompassing hypothesis; in particular, Likelihood Ratio and Variance statistics. These statistics give consistent tests and have (non-identical) limiting distributions which are weighted sums of independent chi-squared variables each of which has one degree of freedom. The distribution function of both limiting distributions may be estimated consistently and, therefore, both tests are easily implemented.

Solimene, Laura

PD January 1994. **TI** Total Factor Productivity in the Italian Telecommunications Industry. **AA** University of Southampton and Universita Cattolica del S. Cuore. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9401; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 46. **PR** no charge. **JE** D24, L96. **KW** Total Factor Productivity. Telecommunications. Italy.

AB This paper is about the measurement of productivity in the telecommunication industry in Italy. Traditionally, the performance of a telecommunication system has been presented in terms of labor productivity growth. This does not account for the changes in the mix of labor, materials, and capital inputs. Of more relevance is the approach based on the measurement of Total Factor Productivity (TFP) that accounts for the overall improvement of the productivity of all the inputs. The total factor productivity measure is computed for two of the Italian telecommunications carriers, Sip, primarily responsible for the local telephone network and partly for the trunk calls, and Italcabe, that provides the international telephone, telegram, and telex service. With respect to the TFP index, a different approach from the one used by the two companies in their own evaluation of performance has been chosen, since the application of a Laspeyeres index is not always desirable. The index used for the TFP measurement is the Divisia Index with the discrete approximation given by Tornqvist and it refers to the period 1975-1991.

Solnik, Bruno

TI What Determines Expected International Asset Returns?
AU Harvey, Campbell R.; Solnik, Bruno; Zhou, Guofu.

Sonstelie, Jon

TI Did Serrano Cause a Decline in School Spending?
AU Silva, Fabio; Sonstelie, Jon.

St-Amour, Pascal

PD January 1994. **TI** State-Dependent Risk Aversion. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 896; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 40. **PR** \$3.00 + GST Canada; \$3.50 U.S. and Foreign. **JE** D81, D91. **KW** Uncertainty. Risk Aversion. State-Dependent Preferences.

AB The traditional representative agent, consumption-based asset pricing model with iso-elastic utility has not performed well empirically. Alternative specifications have focused on the *rigidities implied by the Von Neuman-Morgenstern axioms of choice under uncertainty, in particular the independence* hypothesis, and proposed some degree of generalization. This has been achieved while retaining constant risk aversion for the within-period utility function. The purpose of this paper is to present further flexibility through the risk aversion specification, within the context of non-expected utility, through relaxation of the iso-elasticity assumption. By allowing attitudes toward risk to reflect the information set used for the decision process, risk aversion is no longer fixed, but responds to the evolution in the state of the world as well as the distributional assumptions governing the state variables. The advantage is that the same individual may be a risk-lover over certain states and distributions, while being risk averse over others. The model is developed within a continuous-time setting for consumption and leverage choices. The closed form solution for the risk aversion function gives results that are appealing on intuitive grounds. In particular, risk aversion increases in the variance of the risky return, and falls in wealth and equity premium. Estimation results are presented.

Staiger, Robert W.

PD January 1994. **TI** A Theory of Gradual Trade Liberalization. **AA** University of Wisconsin and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4620; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$5.00. **JE** F13, F41. **KW** Trade Liberalization.

AB This paper proposes a theory of gradual trade liberalization. I consider countries that are limited to self-enforcing arrangements in their trade relations. I argue that enforcement problems associated with the maintenance of low cooperative tariffs are exacerbated by the presence of resources in the import-competing sector that are (or potentially could be) earning rents from their sector-specific skills. Intuitively, by being able to transform into rents a portion of what otherwise would be dead weight loss under a tariff hike, the presence of such resources makes deviation from a low cooperative tariff to a high tariff more desirable for the deviating country, and makes punishments under reciprocally high tariffs less painful. Hence, the prescence fo rent-collecting resources in an import-competing sector acts as a deterrent to trade liberalization. But if an initial "round" of liberalization can induce at least a portion of these resources in the import-competing sector to relocate the rest of the economy, then the enforcement issues associated with their presence will also diminish over time, and further rounds of liberalization are made possible by the effects of the initial round.

PD April 1994. **TI** Measuring Industry Specific Protection: Antidumping in the United States. **AU** Staiger, Robert W.; Wolak, Frank A. **AA** Staiger: University of Wisconsin and National Bureau of Economic Research. *Wolak: Stanford University and National Bureau of Economic* Research. **SR** National Bureau of Economic Research Working Paper: 4696; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 57. **PR** $5.00. **JE** F13. **KW** Trade. Antidumping.
AB This paper provides estimates of the trade impacts of U.S. antidumping law and the determinants of suit filing activity from 1980-1985. We study three possible channels through which the threat or mere possibility of antidumping duties can restrict trade which we believe, when combined with the direct effects of duties, capture most of the trade effects of antidumping law. We refer to these three non-duty effects as the investigation effect, the suspension effect, and the withdrawal effect. Investigation effects occur when an antidumping investigation takes place, suspension effects occur under so-called "suspension agreements", and withdrawal effects occur after a petition is simply withdrawn without a final determination. We find substantial trade restrictions associated with the first two effects, but not with the third. Finally, we find evidence suggesting that some firms initiate antidumping procedures for the trade restricting investigation effects alone.

Starr-McCluer, Martha

PD May 1994. **TI** Health Insurance and Precautionary Saving. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-10; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 40. **PR** no charge. **JE** E21, I10, D10. **KW** Savings. Health. Health Behavior.
AB Recent studies stress precautionary motives for saving: with uncertain income and health, households may accumulate wealth to guard against lower consumption in the future. This paper examines the relationship between health insurance and savings, using high-quality data on household finances. The precautionary view predicts higher savings among households without insurance, ceteris paribus. I find that insurance does reduce saving, once the endogeneity of coverage is taken into account.

Steigerwald, Douglas G.

TI Purchasing Power Parity, Unit Roots, and Dynamic Structure. **AU** Pippenger, John; Steigerwald, Douglas G.

TI Consistency of Quasi-Maximum Likelihood Estimators for Models With Conditional Heteroscedasticity. **AU** Newey, Whitney K.; Steigerwald, Douglas G.

Stein, Ernesto

TI Trading Blocs: The Natural, the Unnatural, and the Super-Natural. **AU** Frankel, Jeffrey A.; Stein, Ernesto; Wei, Shang-Jin.

Steinmeier, Thomas L.

TI Retirement In a Family Context: A Structural Model for Husbands and Wives. **AU** Gustman, Alan L.; Steinmeier, Thomas L.

Stewart, Geoff

TI On the Sale of Production Rights and Firm Organization. **AU** Ireland, Norman J.; Stewart, Geoff.

Stiglitz, Joseph E.

TI The Role of Exclusive Territories in Producers' Competition. **AU** Rey, Patrick; Stiglitz, Joseph E.

Stock, James H.

TI Retirement Incentives: The Interaction Between Employer-Provided Pensions, Social Security, and Retiree Health Benefits. **AU** Lumsdaine, Robin L.; Stock, James H.; Wise, David A.

Stuart, Charles

TI Evolutionary Market Equilibrium in Bertrand and Cournot Settings. **AU** Qin, Cheng-Zhong; Stuart, Charles.

PD January 1994. **TI** Corn Laws and Modern Agricultural Trade Policy. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 1-94; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, CA 93106. **PG** 37. **PR** no charge. **JE** D70, F10, N40, N50, Q10. **KW** Agricultural Policy. Political Economy. Corn Laws. Protectionism. Price Stabilization.
AB I study the political economy of agricultural trade policy. Political pressures from farmers and nonfarmers depend on how policy affects prices and incomes and hence utilities. Political equilibrium tends to be protectionist, with government stabilizing domestic prices when world prices fluctuate and also protecting agents against changes in output. In world equilibrium, trade wars occur endogenously. The analysis helps understand historical and current agricultural trade policy. There is evidence, for instance, that policy has stabilized agricultural prices since at least the late Middle Ages. The analysis also suggests that English corn laws from 1463-1815 could have been Pareto-Improving.

TI Bertrand vs. Cournot: An Answer 100 Years Later. **AU** Qin, Cheng-Zhong; Stuart, Charles.

Stulz, Rene M.

PD February 1994. **TI** International Portfolio Choice and Asset Pricing: An Integrative Survey. **AA** Ohio State University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4645; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** $5.00. **JE** F30, G11, G12, G15. **KW** International Portfolio Choice. International Asset Pricing.
AB In general, theories of portfolio choice and asset pricing

let investors differ at most with respect to their preferences, their wealth and possibly, their information sets. If there are multiple countries, however, the investment and consumption opportunity sets of investors depend on their country of residence. International portfolio choice and asset pricing theories attempt to understand how the existence of country-specific investment and consumption opportunity sets affect the portfolios held by investors and the expected returns of assets. In this paper, we review these theories within a common framework, discuss how they fare in empirical tests, and assess their relevance for the field of international finance.

TI Asset Sales, Firm Performance, and the Agency Costs of Managerial Discretion. **AU** Lang, Larry; Stulz, Rene M.; Poulsen, Annette.

Sulganik, Eyal

PD January 1994. **TI** The Value of Information: Disadvantageous Risk-Sharing Markets. **AU** Sulganik, Eyal; Zilcha, Itzhak. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 2/94; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 32. **PR** no charge. **JE** D10, D80. **KW** Information. Signal. Risk. Market.

AB The narrow applicability of Blackwell's result that "more information" is desirable, lies in the fact that in economic models, once a signal is observed by all economic agents their opportunity sets may vary. We show that Blackwell's theorem does not hold when the feasible set of actions is signal-dependent. We find sufficient condition for the result to hold under these conditions. We also apply this result to two economic models where risk sharing markets are widespread: A model with futures markets and hedging and a model of life cycle where the lifetime horizon is a random variable. In both cases we show that in the absence of risk-sharing markets (i.e., futures markets or life insurance market) more information is advantageous. On the other hand, when such markets are introduced we may find many cases where more information is disadvantageous to the risk-averse agents.

Sundakov, Alexander

PD January 1994. **TI** Shortages Under Free Prices: The Case of Ukraine in 1992. **AU** Sundakov, Alexander; Ossowski, Rolando; Lane, Timothy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/10; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 19. **PR** not available. **JE** D40, P22, P23, P31. **KW** Ukraine. Shortages. Central Allocation Mechanisms.

AB This paper examines the coexistence of free prices and shortages for a range of consumer goods in Ukraine during 1992. Enterprises making consumer goods were substantially free to set market-clearing prices. Yet, Ukraine's official consumer market experienced continued shortages, while the same goods traded at higher prices in parallel markets. The paper advances a model of enterprise behavior in an environment of central allocation of inputs at preferential prices. We show that central allocation of key inputs according to perceived "need" creates incentives for excess demand to be perpetuated despite formal price liberalization. The analysis brings forth the importance of abolishing allocation mechanisms for price liberalization to bring its full efficiency effects.

Sundararajan, V.

TI The Payments Systems Reforms and Monetary Policy in Emerging Market Economies in Central and Eastern Europe. **AU** Balino, Tomas J. T.; Dhawan, Juhi; Sundararajan, V.

Svensson, Lars E. O.

PD December 1993. **TI** The Simplest Test of Inflation Target Credibility. **AA** Stockholm University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4604; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 10. **PR** $5.00. **JE** E31, E42. **KW** Inflation Target Credibility Test.

AB A simple test of inflation target credibility is constructed by subtracting the maximum and minimum inflation rates consistent with the inflation targets from the yields to maturity on nominal bonds. This results in a target-consistent range of real yields on nominal bonds. If expected real yields, or market real interest rates on real bonds if such are available, fall outside the range of target-consistent real yields, credibility is rejected. Two concepts of credibility, called absolute credibility and credibility in expectation, are distinguished. The inflation targets of Canada, New Zealand and Sweden are examined with convenient diagrams over yields to maturity and forward interest rates.

PD January 1994. **TI** Monetary Policy with Flexible Exchange Rates and Forward Interest Rates as Indicators. **AA** Svensson: Stockholm University and Centre of Economic Program Research and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4634; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $5.00. **JE** E43, F31. **KW** Flexible Exchange Rates. Forward Interest Rates.

AB In the new situation with flexible exchange rates, monetary policy in Europe will have to rely more on indicators than previously under fixed rates. One of the potential indicators, the forward interest rate curve, can be used to indicate market expectations of the time-paths of future short interest rates, montary policy, inflation rates and currency depreciation rates. The forward rate curve separates market expectations for the short, medium and long term more easily than the standard yield curve. Monetary policy in France, Germany, Great Britain, Sweden and the United States is interpreted with the help of forward rates.

Swagel, Phillip

TI Trade Barriers and Trade Flows Across Countries and Industries. **AU** Lee, Jong-Wha; Swagel, Phillip.

Swamy, P. A. V. B.

PD May 1994. **TI** A General Method of Deriving the Efficiencies of Banks From a Profit Function. **AU** Swamy, P. A. V. B.; Akhavein, Jalal D.; Taubman, Stephen B. **AA** Swamy and Taubman: Board of Governors of the Federal Reserve System. Akhavein: Wharton Financial Institution Center and University of Pennsylvania. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94-11; C/O Simon Gilchrist, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 42. **PR** no charge. **JE** G20, C51. **KW** X-Inefficiencies. Profit Functions. Banks.

AB This paper develops a new method of estimating the inefficiencies of firms and points out that unlike the approaches utilized in the previous studies of inefficiency that specify share or similar equations along with a cost or profit function, this method makes a consistent set of general assumptions. The method is applied in the analysis of annual data, 1984-1989, for U.S. commercial banks. The results of the paper show that the residual which the previous studies attribute to technical inefficiency includes the effects of excluded variables, of inaccuracies in the specified functional forms, and of using inconsistent parameter estimates. They further show that once these effects are subtracted from the residual, the measured inefficiencies are substantially reduced.

Symons, James S.V

TI Real Interest Rates and Index Linked Gilts. **AU** Robertson, Donald; Symons, James S.V.

Szamuely, George

PD November 1993. **TI** Clinton and the New Interventionism. **AA** Stanford University. **SR** Stanford Hoover Institution International Studies Working Paper: I-93-12; The Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 29. **PR** no charge. **JE** D73, H56, F01. **KW** Foreign Policy. International Order. Defense Spending.

AB The Clinton Administration came to power committed to overturning both versions of President Bush's New World Order. It rejected the notion that the United States should act as the guarantor of an international order which did not prescribe the values its member-states should subscribe to. But it also rejected the version which suggested that the United States should seek an overwhelming military superiority relative to other states so as to give it freedom of action. President Clinton had an ambitious foreign policy agenda to make the world a more moral place. But he was also committed to making massive defense cuts. President Clinton's solution involved the United States acting only after consultation--and then in concert--with other powers. Yet the Administration ran into trouble almost immediately. The American people did not appreciate their President deferring to the opinion of others when national interests were involved. But neither did they appreciate their countrymen dying when national interests were not involved.

Taubman, Paul

TI Why Do Wage Profiles Slope Upwards? Tests of the General Human Capital Model. **AU** Neumark: David; Taubman, Paul.

Taubman, Stephen B.

TI A General Method of Deriving the Efficiencies of Banks From a Profit Function. **AU** Swamy, P. A. V. B.; Akhavein, Jalal D.; Taubman, Stephen B.

Tesar, Linda L.

PD January 1994. **TI** International Equity Transactions and U.S. Portfolio Choice. **AU** Tesar, Linda L.; Werner, Ingrid M. **AA** Tesar: University of California, Santa Barbara and National Bureau of Economic Research. Werner: Stanford University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 9611; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** $5.00. **JE** C12, F21, G11, G15. **KW** International Portfolio Diversification. Foreign Equity Investments. Capital Asset Pricing Model.

AB This paper studies the cross-border transactions in equity by investors in Canada, Germany, Japan, the U.K. and the U.S. We find that investors from different countries make very different decisions about the allocation of their portfolio across markets. In contradiction to the notion that high variable transactions costs hinder international diversification, we find that the volume of gross equity flows vastly exceeds net equity flows and the turnover rate on foreign equity investments by some investors even exceeds domestic turnover rates. We also reject the hypothesis that U.S investors follow the standard CAPM in allocating their global equity portfolio.

Thursby, Marie

TI Flexibility: A Partial Ordering. **AU** Krishna, Kala; Thursby, Marie.

Tirole, Jean

TI On the Management of Innovation. **AU** Aghion, Philippe; Tirole, Jean.

PD August 1993. **TI** The Internal Organization of Government. **AA** IDEI and Massachusetts Institute of Technology and CERAS. **SR** Massachusetts Institute of Technology Department of Economics Working Paper: 93-11; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 60. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** H11, J45. **KW** Civil Service. Organization of Government. Career Concerns. Missions. Checks and Balances. Interest Groups.

AB So far, incentive theory has been mainly motivated by and applied to private organizations. Yet, in view of the important role played by civil servants and politicians in our economies, it is worth asking what differentiates a corporate executive and a government official. The first part of the paper discusses some specificities of the design of incentives in the public sector: Multiplicity of goals, unclear weighing of these goals, and nonmeasurability of some of them; lack of comparison; heterogeneity of tastes and dispersion of principals. It is argued that these features call for low-powered formal incentives. The second part of the paper discusses some implications of low-powered incentives. First, career concerns, associated with the prospect of reelection, promotion or employment in the public sector, are at least as pervasive as in the private sector. Second, the paper discusses the issue of regulatory capture and corruption, and how institutional design may naturally respond to low-powered incentives. The third part of the paper studies the division of labor within government: 1) Intertemporal division of labor between successive administrations and constitutional limits on commitment by the State. 2) Division of labor between the government and the private sector and the cost and benefits of privatization. 3) Division of labor among ministries and the use of multiple principals to control economic agents. 4) Division of labor aimed at creating information for public decision making and the use of enfranchised advocates of specific interests.

PD August 1993. **TI** A Theory of Collective Reputations with Applications to the Persistence of Corruption and to Firm Quality. **AA** IDEI and Massachusetts Institute of Technology and CERAS. **SR** Massachusetts Institute of Technology

Department of Economics Working Paper: 93-13; Department of Economics, Massachusetts Institute of Technology, Cambridge, MA 02139. **PG** 33. **PR** $8.00 Domestic; $10.00 Overseas; $5.00 Student. **JE** L15, Z10. **KW** Stereotypes. History Dependence. Corruption. Firm Quality.
AB The topic of this paper, the phenomenon of group reputation, has been neglected in economic theory despite its importance for the social sciences. Because a group's reputation is only as good as that of its members, we focus on the interaction between individual incentives and collective reputation. Stereotypes are viewed as stemming from history dependence rather than from specific cultural or racial traits.

Touzi, N.

TI Contingent Claims and Market Completeness in a Stochastic Volatility Model. **AU** Romano, M.; Touzi, N.

TI Option Hedging and Implicit Volatilities in a Stochastic Volatility Model. **AU** Renault, E.; Touzi, N.

TI Intertemporal Equilibrium Risk Premia in a Stochastic Volatility Model. **AU** Pham, H.; Touzi, N.

Towe, Christopher M.

PD December 1993. **TI** Recent U.S. Investment Incentives. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/93/92; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 10. **PR** not available. **JE** E22, E27, E62. **KW** Investment Incentives. User Cost of Capital.
AB The apparent slowdown in U.S. investment and productivity growth in recent years has led to a number of proposals to stimulate investment through the adoption of tax incentives. This paper describes the incentives that were contained in the February 1993 Budget and estimates their effect on the user cost of capital. The recent evidence regarding the effect of tax changes on investment in the United States is reviewed, and the likely effect of the Budget's proposals on investment and overall economic activity is simulated. The simulations suggest that the proposals would have had a stimulative but largely transitory effect on U.S. investment and output.

Tracy, Joseph

PD January 1994. **TI** The Best Business Schools: A Market Based Approach. **AU** Tracy, Joseph; Waldfogel, Joel. **AA** Tracy: Columbia University. Waldfogel: Yale University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4609; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 16. **PR** $5.00. **JE** C81, D40, I21. **KW** Business School Rankings.
AB We present a new methodology for ranking business schools. Unlike previous rankings based on subjective survey responses our approach uses data derived from the labor market for new MBAs. We adjust programs' salaries for the quality of entering students in an attempt to distinguish value added from the quality of incoming students. We then rank programs according to value added. Our results are rather surprising. While four of our top five programs are also labelled as top programs in other rankings, ten of our top twenty programs are previously unranked. By emphasizing program value added, our procedure identifies several programs that have been overlooked by other rankings since they do not recruit the very top students. We explore the determinants of our value added and student quality measures and find that connections to the business ccommunity are positively related to value added, while academic research and high faculty salaries are more strongly associated with student quality. We also find that tuition is better explained by our measure of value added than raw salary, suggesting that programs charge according to value added.

Trela, Irene

TI Evaluating Labour Adjustment Costs from Trade Shocks: Illustrations for the U.S. Economy Using an Applied General Equilibrium Model With Transactions Costs. **AU** Clarete, Ramon L.; Trela, Irene; Whalley, John.

Trognon, A.

TI Parameter of Interest, Nuisance Parameter and Orthogonality Conditions: An Application to Autoregressive Error Component Models. **AU** Crepon, B.; Kramarz, F.; Trognon, A.

Udell, Gregory F.

TI Did Risk-Based Capital Allocate Bank Credit and Cause a "Credit Crunch" in the U.S.? **AU** Berger, Allen N.; Udell, Gregory F.

TI Did Risk-Based Capital Allocate Bank Credit and Cause a Credit Crunch in the U.S.? **AU** Berger, Allen N.; Udell, Gregory F.

Ulph, Alistair

TI The Flexibility of National Economies in Response to the Oil-Price Shocks. **AU** Smith, Peter; Ulph, Alistair.

PD February 1994. **TI** Global Warming: Why Irreversibility May Not Require Lower Current Emissions of Greenhouse Gases. **AU** Ulph, Alistair; Ulph, David. **AA** Ulph, A.: University of Southampton and CSERGE. Ulph, D.: University College London and CSERGE. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9402; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 39. **PR** no charge. **JE** D81, D83, D90, Q28. **KW** Global Warming. Irreversibility Effect. Uncertainty. Learning.
AB Almost all of the existing studies of policies towards global warming ignore the fact that greenhouse gas emissions are irreversible, there is considerable uncertainty about future damages from global warming, and there is the prospect of learning more about the damages in the future. This raises the question of how the policies derived from these models with respect to current reductions in emissions should be modified to take account of the three factors noted above. The conventional wisdom is that policy makers should be more reluctant to make irreversible policy decisions, so that emissions of greenhouse gases should be cut even further than suggested by the models which ignore irreversibility and learning. In this paper we argue that this is incorrect. Much of the conventional wisdom is based on simple models which are inappropriate for studying global warming. When more general models are used, it is well known that the effects of irreversibility and learning on current policy are ambiguous. Epstein (1980) provided general sufficient conditions for current emissions with learning to be higher or

lower than emissions without learning. However we also show that neither of his conditions can be applied in the case of global warming. We derive a new sufficient condition for irreversibility and learning to imply lower current emissions than without learning: namely if the irreversibility constraint bites in the case of no learning, then current emissions with learning should be lower than current emissions without learning. Since we believe that none of the existing models of global warming shows that the irreversibility constraint does bite in the case of no learning, we believe there is no a priori argument that irreversibility and learning should require lower emissions of greenhouse gases than those suggested by the existing models.

PD March 1994. **TI** Strategic Environmental Policy, International Trade and the Single European Market. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9403; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 19. **PR** no charge. **JE** F12, F13, F02, Q20. **KW** Environmental Policy. International Trade. Imperfect Competition.
AB This paper addresses the question of whether there is a role for a supra-national environmental agency to oversee the environmental policy of national governments. Within the context of the Single European Market this is the question of whether environmental policy should be governed by the subsidiarity principle. The particular set of concerns addressed in this paper are those raised by some environmentalists in the debates over NAFTA, GATT, etc. that trade liberalization may lead governments to distort their environmental policies (making them too lax) as a means of protecting their local industries. In this paper I review the standard arguments which show that, with competitive trade markets, these concerns are unfounded. I then review the more recent literature on imperfectly competitive trade and environmental policy and show that this context provides some reasons to believe that there are incentives for national government (or states within a federation) to distort environmental policies for trade reasons. However, this review also shows that there are few robust results emerging from this literature on strategic trade to provide guidance about how a supra-national authority might correct the distortions arising from national-level environmental policy.

PD April 1994. **TI** Who Gains From Learning About Global Warming? **AU** Ulph, Alistair; Ulph, David. **AA** Ulph, A.; University of Southampton and CSERGE. Ulph, D.: University College London and CSERGE. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9407; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 35. **PR** no charge. **JE** C73, D62, D80, F02, Q20. **KW** Global Warming. Dynamic Games. Uncertainty. Learning.
AB In this paper we bring together two previously separate strands of literature dealing with global warming--the literature on the analysis of strategic interactions between independent national governments confronted with a dynamic problem of the global commons, which has ignored issues of uncertainty and learning, and the literature on uncertainty, learning and irreversibility, which has assumed a single decision-making authority. The integration of these two literatures changes significantly the predictions derived from the separate literatures, especially the predictions about the impact of uncertainty and learning. Thus we show the following: (i) in situations where a single decision-maker would use the prospect of learning to delay cutting emissions, strategic interactions can cause countries to accelerate the cutting of emissions; (ii) while a single decision-maker is always better off when there is the possibility of learning, countries can now be worse off with the possibility of learning, and would not be prepared to pay anything for better information; this has the further implication that there is now an important additional source of gains from international agreements, to at least international coordination.

PD April 1994. **TI** The Irreversibility Effect Revisited. **AU** Ulph, Alistair; Ulph, David. **AA** Ulph, A.: University of Southampton and CSERGE. Ulph, D.: University College London and CSERGE. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 9408; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 19. **PR** no charge. **JE** D81. **KW** Irreversibility. Learning. Uncertainty.
AB The irreversibility effect arises in multi-period decision problems when the net benefits of future benefits are uncertain, current period decisions are irreversible, but there is the possibility of learning more information about future benefits at some point after the current period decision has been taken but prior to the last period's decision being taken. The irreversibility effect refers to the possibility that in such circumstances the current period decision should involve less irreversible commitment than would be the case if the same decisions were being taken, but with no possibility of learning. It is already known that the irreversibility effect does not generally hold, and Epstein (1980) has provided sufficient conditions for the irreversibility effect to hold. However, the models in which this sufficient condition can be applied are rather special, and there are interesting problems where this sufficient condition leaves it ambiguous whether the irreversibility effect will hold or not. In this paper we provide a different set of sufficient conditions for the irreversibility effect to hold which complements those provided by Epstein and allow some of the ambiguities left by Epstein's conditions to be resolved. Our analysis also tries to identify the underlying sources of ambiguity in determining whether the irreversibility effect holds.

Ulph, David

TI Global Warming: Why Irreversibility May Not Require Lower Current Emissions of Greenhouse Gases. **AU** Ulph, Alistair; Ulph, David.

TI Who Gains From Learning About Global Warming? **AU** Ulph, Alistair; Ulph, David.

TI The Irreversibility Effect Revisited. **AU** Ulph, Alistair; Ulph, David.

Van Ours, Jan C.

TI New Facts about Factor-Demand Dynamics: Employment, Jobs and Workers. **AU** Hamermesh, Daniel S.; Hassink Wolter H.J.; Van Ours, Jan C.

Van Rijckeghem, Caroline

PD December 1993. **TI** Endogeneity in Structural Unemployment Equations: The Case of Canada.

AA International Monetary Fund. SR International Monetary Fund Working Paper: WP/93/94; International Monetary Fund, 700 19th Street, Washington, DC 20431. PG 14. PR not available. JE E24, E61, J32, J65. KW Structural Unemployment. Canada.

AB This paper examines the endogeneity of several structural variables which enter unemployment rate equations--the generosity of unemployment benefits, nonwage labor costs, the relative minimum wage, and the degree of unionization. It finds evidence of reverse causality for these structural variables based on causality tests. The structural unemployment rate equation is then estimated using instruments suggested by the empirical analysis of the structural variables. The paper confirms the earlier finding that the generosity of unemployment benefits, nonwage labor costs, and the relative minimum wage have a significant positive impact on the unemployment rate, but fails to find an effect for the degree of unionization.

Van Wijnbergen, Sweder

TI Location Choice, Market Structure and Barriers to Trade: Foreign Investment and the North American Free Trade Agreement. AU Venables, Anthony J.; Van Wijnbergen, Sweder.

Velling, Johannes

TI Wage and Employemnt Effects of Immigration to Germany: An Analysis Based on Local Labor Markets. AU Pischke, Jorn-Steffen; Velling, Johannes.

Venables, Anthony J.

TI Integration, Specialization and Adjustment. AU Krugman, Paul; Venables, Anthony J.

PD November 1993. TI Location Choice, Market Structure and Barriers to Trade: Foreign Investment and the North American Free Trade Agreement. AU Venables, Anthony J.; Van Wijnbergen, Sweder. AA Venables: London School of Economics and Center of Economic Policy Research. Van Wijnbergen: University of Amsterdam, London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 177; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 31. PR no charge. JE F12, F14, F15, F23. KW Industrial Location. Foreign Investment. NAFTA.

AB Much of the excitement around the North American Free Trade Agreement (NAFTA) has been generated by anticipations of a strong foreign investment response. Nevertheless, the plethora of applied papers about the NAFTA have all either ignored DFI or kept it exogenous. In this paper we provide support, with empirical underpinning, for the anticipation of a strong DFI response. However, this support is qualified by the demonstration that no such DFI response will be forthcoming unless the NAFTA is used to drastically reform the agriculture and services sectors in Mexico.

Venti, Steven F.

PD December 1993. TI The Wealth of Cohorts: Retirement Saving and the Changing Assets of Older Americans. AU Venti, Steven F.; Wise, David A. AA Venti: Dartmouth College and National Bureau of Economic Research. Wise: Harvard University and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 4600; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 30. PR $5.00. JE E21. KW Personal Retirement Accounts. Saving.

AB Personal retirement accounts are becoming an increasingly important form of retirement saving. Using data from the Survey of Income and Program Participation, the paper considers the effect of this change on the assets of recent retirees and persons who are approaching retirement. Much of the analysis is based on comparison of younger and older cohorts with different lenghts of exposure to personal retirement saving programs. The findings suggest that personal retirement saving has already added substantially to the personal financial assets of older families. Projections imply that the personal financial assets of the cohort that will attain age 76 in 28 years will be almost twice as large as the personal financial assets of the cohort that attained age 76 in 1991. Together with evidence that personal financial saving is unrelated to changes in home equity, the results suggest that personal retirement saving will lead to an impotant increase in the overall wealth of the elderly.

Verdier, Thierry

TI The Political Economy of Declining Industries: Senescent Industry Collapse Revisited. AU Brainard, S. Lael; Verdier, Thierry.

Waldfogel, Joel

TI The Best Business Schools: A Market Based Approach. AU Tracy, Joseph; Waldfogel, Joel.

Walker, Sheila

TI New Firms, Small Firms and Dead Firms: Spatial Patterns and Determinants in the United Kingdom. AU Keeble, David; Walker, Sheila.

Wang, Gyu Ho

TI On the Choice of Mechanism to Sell Timber. AU Paarsch, Harry J.; Wang, Gyu Ho.

PD April 1993. TI Cheap Talk and Signaling Games. AA University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 9310; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 16. PR Canada $7.00; Elsewhere $9.00. JE D82, D83, C72. KW Signalling. Private Information. Credibility.

AB We examine the role of cheap talk in the class of signaling games. For this, we define extended signaling games which extend the signaling games by allowing the player with private information to talk before he sends a costly signal. We propose a criterion called "Credibility Test" by which one determines when cheap talk should be taken seriously. We show that "Credibility Test" is stronger than perfect sequential equilibrium by Grossman and Perry (1986). In class of signaling games of coordination, "Credibility Test" picks up the full coordination as the unique equilibrium outcome. Sometimes "Credibility Test" is too strong to exist.

Wascher, William

TI Minimum Wage Effects and Low-Wage Labor Markets:

A Disequilibrium Approach. **AU** Neumark, David; Wascher, William.

TI Minimum Wage Effects on Employment and School Enrollment. **AU** Neumark, David; Wascher, William.

Wehbeh, Hassan

TI The Impact of Prenatal Exposure to Cocaine on Newborn Costs and Length of Stay. **AU** Joyce, Theodore; Racine, Andrew D.; McCalla, Sandra; Wehbeh, Hassan.

Wei, Shang-Jin

PD December 1993. **TI** Open Door Policy and China's Rapid Growth: Evidence From City-Level Data. **AA** Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4602; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** not available. **PR** $5.00. **JE** F14, E22, O11, O53. **KW** China. Growth. Technological Spillovers. Foreign Investment.

AB There is clear evidence that during 1980-90 more exports are positively associated with higher rates across Chinese cities. In comparison, in the late 1980s, the contribution to growth comes mainly from foreign investment. The contribution of foreign investment comes in the form of technological and managerial spillover across firms as opposed to an infusion of new capital. Finally, there is nothing magical about the high growth rates of Chinese coastal areas other than their effective ulilization of foreign investment and exports.

TI Trading Blocs: The Natural, the Unnatural, and the Super-Natural. **AU** Frankel, Jeffrey A.; Stein, Ernesto; Wei, Shang-Jin.

Weiss, Yoram

PD December 1993. **TI** The Formation and Dissolution of Families: Why Marry? Who Marries Whom? And What Happens Upon Divorce. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 15/93; Department of Economics, Tel Aviv University, Ramat Aviv 69978, ISRAEL. **PG** 74. **PR** no charge. **JE** J10, D13. **KW** Family. Marriage. Divorce.

AB This survey summarizes the main ideas that economists bring to the analysis of marriage and divorce. The new perspective of economists is that marriage, when viewed as a voluntary union of rational individuals, is subject to the same tools of analysis as other economic phenomena. In particular, economists rely heavily on the similarity between the job market, where workers and firms combine to produce marketable goods, and the marriage market where husbands and wives combine to produce non marketable household goods. In both cases the forces of competition determine the assignment and the associated division of the proceeds between the partners. This survey does not enumerate individual contributions and does not summarize empirical findings. Instead, the reader is exposed to the main ideas in an integrated fashion, using simple models. It is my belief that such a presentation of the literature can be useful to graduate students and researchers who wish to become acquainted with what can economics say on "non-economic" subjects such as marriage and divorce. The survey covers the following topics: gains from marriage, resource allocation within the family and the role of assortative matching, search for a mate and divorce.

Werner, Ingrid M.

TI International Equity Transactions and U.S. Portfolio Choice. **AU** Tesar, Linda L.; Werner, Ingrid M.

Whalley, John

TI The New Regionalism: Trade Liberalization or Insurance? **AU** Perroni, Carlo.; Whalley, John.

TI Evaluating Labour Adjustment Costs from Trade Shocks: Illustrations for the U.S. Economy Using an Applied General Equilibrium Model With Transactions Costs. **AU** Clarete, Ramon L.; Trela, Irene; Whalley, John.

Wheelock, David C.

PD July 1993. **TI** Explaining Bank Failures: Deposit Insurance, Regulations, and Efficiency. **AU** Wheelock, David C.; Wilson, Paul W. **AA** Wheelock; Federal Reserve Bank of St. Louis. Wilson: University of Texas. **SR** Federal Reserve Bank of St. Louis Working Paper: 93-002A; Research and Public Information Division, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. **PG** 32. **PR** no charge. **JE** G21, G28, N22. **KW** Bank Failures. Banking History. Banking Regulation. Deposit Insurance. Technical Efficiency.

AB This paper uses micro-level historical data to examine the causes of bank failure. For state-chartered Kansas banks during 1910-28, time-to-failure is explicitly modeled using a proportional hazards framework. In addition to standard financial ratios, this study includes membership in the voluntary state deposit insurance system and measures of technical efficiency to explain bank failure. The results indicate that deposit insurance system membership increased the probability of failure, and banks which were technically inefficient were more likely to fail than technically efficient banks.

White, Eugene N.

PD January 1994. **TI** The New York Stock Market in the 1920s and 1930s: Did Stock Prices Move Together Too Much? **AU** White, Eugene N.; Rappoport, Peter. **AA** White: National Bureau of Economic Research and Rutgers University. Rappoport: Rutgers University. **SR** National Bureau of Economic Research Working Paper: 4627; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** $5.00. **JE** G10, N20. **KW** Stock Market 1920's - 1930's.

AB In this paper, we re-examine the stock market of the 1920's and 1930's for evidence of a bubble, a "fad" or "herding" behavior by studying individual stock returns. One story often advanced for the boom of 1928 and 1929 is that it was driven by the entry into the market of largely uniformed investors, who followed the fortunes of and invested in "favorite" stocks. The recent theoretical literature on how "noise traders" perturb financial markets is consistent with this description. The result of this behavior would be a tendency for the favorite stocks' prices to move together more than would be predicted by their shared fundamentals. Our results suggest that there was excess comovement in returns even before the boom began, but comovement increased significantly during the boom and was a signal characteristic of the tumultuous market of the early 1930's. These results are thus consistent with the possibility that a fad or crowd psychology played a role in the rise of the market, its crash and subsequent volatility.

TI France and the Bretton Woods International Monetary System: 1960 to 1968. AU Bordo, Michael D.; Simard, Dominique; White, Eugene N.

White, Michelle J.

TI Measuring the Benefits of Homeowning: Effects on Children. AU Green, Richard K.; White, Michelle J.

Whitfield, Keith

PD October 1993. TI Does the Regulatory System Matter?: A Comparison of Workplace Industrial Relations in Australia and Britain. AU Whitfield, Keith; Marginson, Paul; Brown, William. AA Whitfield: University of Wales. Marginson: University of Warwick. Brown: University of Cambridge. SR London School of Economics Centre for Economic Performance Discussion Paper: 175; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 40. PR no charge. JE C12, C51, J58. KW Institutional Difference. Methodology. Regulatory Systems.

AB The focus of the paper is upon the extent to which different national regulatory systems give rise to different institutions and outcomes at the workplace. It uses data from the Australian Workplace Industrial Relations Survey (AWIRS) and the third British Workplace Employee Relations Survey (WIRS3) to examine a number of hypotheses which suggest that the different regulatory systems of these countries have produced distinct patterns of industrial relations at the workplace. Three types of hypothesis concerning these differences are outlined. The first suggests that IR arrangements and outcomes will be more uniform in Australia; the second posits that a range of variables will be of a larger magnitude, all other things being equal, in Australia than Britain; the third hypothesis that regression equations estimated on the AWIRS data-set will have a lower level of determination than those using the WIRS3 data-set. Four elements of IR outcome and arrangements are examined - unionization, the prevalence of specialist IR managers, the incidence of industrial action, and voluntary labor turnover. The results of these examinations are deemed to be richly paradoxical. Those for the distribution of specialist managers and the hypotheses of determination are generally supported. Others, for example, those for unionization and uniformity, are much less strongly supported than previous research has suggested. It is concluded that, while there is substantial evidence that the countries' different regulatory systems have distinct effects on IR outcomes, these are far from straightforward. Further analysis of the data will seek to develop the comparison by introducing additional variables and by exploring more searchingly the complex relationship between state regulation and workplace industrial relations.

Wickham, Peter

TI Commodity Prices: Cyclical Weakness or Secular Decline? AU Reinhart, Carmen M.; Wickham, Peter.

Wilcox, David W.

TI Employee Decisions with Respect to 401(k) Plans: Evidence From Individual-Level Data. AU Kusko, Andrea L.; Poterba, James M.; Wilcox, David W.

TI Judging Instrument Relevance in Instrumental Variables Estimation. AU Hall, Alastair R.; Rudebusch, Glenn D.; Wilcox, David W.

Wilson, Paul W.

TI Explaining Bank Failures: Deposit Insurance, Regulations, and Efficiency. AU Wheelock, David C.; Wilson, Paul W.

Wise, David A.

TI The Wealth of Cohorts: Retirement Saving and the Changing Assets of Older Americans. AU Venti, Steven F.; Wise, David A.

TI Retirement Incentives: The Interaction Between Employer-Provided Pensions, Social Security, and Retiree Health Benefits. AU Lumsdaine, Robin L.; Stock, James H.; Wise, David A.

Wolak, Frank A.

TI Measuring Industry Specific Protection: Antidumping in the United States. AU Staiger, Robert W.; Wolak, Frank A.

Wonnacott, Ronald J.

TI Hubs and Spokes, and Free Trade in the Americas. AU Kowalczyk, Carsten; Wonnacott, Ronald J.

Woodford, Michael

TI Is the Business Cycle a Necessary Consequence of Stochastic Growth? AU Rotemberg, Julio J.; Woodford, Michael.

Xepapadeas, A.

TI Environmental Policy Under Oligopoly with Endogenous Market Structure. AU Katsoulacos, Y.; Xepapadeas, A.

Yoo, Peter S.

PD February 1994. TI The Baby Boom and Economic Growth. AA Federal Reserve Bank of St. Louis. SR Federal Reserve Bank of St. Louis Working Paper: 94-001A; Research and Public Information Division, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. PG 14. PR no charge. JE D91, E17, E21, E22, J11. KW Baby Boom. Simulation. Growth. Life-Cycle. Demographics. Aging.

AB This paper presents a model of economic growth based on the life-cycle hypothesis to determine the path of capital accumulation and economic growth as the baby boom passes through the U.S. economy. The model predicts that a baby boom causes a temporary decline of the capital-labor ratio. The temporary drop of the capital-labor ratio requires a decrease in consumption per capita but as the baby boom generation nears retirement, capital intensity increases, which raises output per worker and per capita consumption. Furthermore and perhaps counter intuitively, the model predicts that the saving rate of the economy falls during the period of increasing consumer welfare. These results suggest that consumer welfare may increase as the baby boom generation begins to retire near the turn of the century. Thus the retirement of the baby boom generation need not necessarily be a cause of concern.

PD February 1994. TI Age Distributions and Returns of Financial Assets. AA Federal Reserve Bank of St. Louis. SR Federal Reserve Bank of St. Louis Working Paper: 94-002A; Research and Public Information Division, Federal

Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. **PG** 31. **PR** no charge. **JE** D12, D91, E21, E43, E44, G12, J11. **KW** Aging. Asset Pricing. Demographics. Financial Assets.

AB This paper presents a simple overlapping generations model that describes the relationship between cohort size and asset returns. The model predicts that as more individuals reach the age when the increment to their wealth reaches its maximum, aggregate demand for saving increases, thus lowering asset returns. Cross-sectional evidence from the Survey of Financial Characteristics of Consumers and the Survey of Consumer Finances indicates that individuals aged 45 to 54 have the largest increment to wealth of any age group. Time series estimates confirm that a close link exists between aggregate household wealth and the size of this age group. In accordance with the model presented in this paper, time series estimates of the relationship between asset returns and age distribution suggest a large, statistically significant, negative correlation between the fraction of the population aged 45 to 54 and the returns of several types of assets.

PD February 1994. **TI** Age Dependent Portfolio Selection. **AA** Federal Reserve Bank of St. Louis. **SR** Federal Reserve Bank of St. Louis Working Paper: 94-003A; Research and Public Information Division, Federal Reserve Bank of St. Louis, P.O. Box 442, St. Louis, MO 63166. **PG** 22. **PR** no charge. **JE** D12, G11, J10. **KW** Aging. Demographics. Portfolio Assets. Risk.

AB This paper addresses the issue of portfolio risk exposure as a function of age, and it focuses the debate by presenting detailed cross-sectional evidence about individual portfolios. It provides new empirical results that characterize the relationship between age and the risk exposure of individual portfolios. The evidence from cross-sectional data suggests that individuals do not follow behavior proscribed by economic theory or by Wall street advisors, rather the results of this paper suggest that current body of theoretical literature does not adequately describe the behavior of individuals. It implies that a satisfactory model of individual behavior needs to focus on factors not linearly correlated with age.

Young, Alwyn

PD March 1994. **TI** The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience. **AA** Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4680; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** $5.00. **JE** E22, F21, O41. **KW** Factor Accumulation. Investment. Growth.

AB This paper documents the fundamental role played by factor accumulation in explaining the extraordinary postwar growth of Hong Kong, Singapore, South Korea, and Taiwan. Participation rates, educational levels, and (with the exception of Hong Kong) investment rates have risen rapidly in all four economies. In addition, there have been large intersectoral reallocations of labor, with (again, excepting Hong Kong) non-agricultural and manufacturing employment growing one and a half to two times as fast as the aggregate working population. Thus, while the growth of output per capita in these economies has averaged 6% to 7% per annum over the past two and a half decades, the growth of output per effective worker in the non-agricultural sector of these economies has been only 3% to 4% per annum. If one then allows for the doubling, tripling and even quadrupling of the investment to GDP ratio in these economies, one arrives at total factor productivity growth rates, both for the non-agricultural economy and for manufacturing in particular, which are well within the bounds of those experienced by the OECD and Latin American economies over equally long periods of time. While the growth of output and manufacturing exports in the newly industrializing economies of East Asia is virtually unprecedented, the growth of total factor productivity in these economies is not.

Zee, Howell H.

PD January 1994. **TI** Endogenous Time Preference and Endogenous Growth. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/94/15; International Monetary Fund, 700 19th Street, Washington, DC 20431. **PG** 12. **PR** not available. **JE** H20, O41. **KW** Endogenous Growth. Growth Convergence. Taxation and Growth.

AB The present paper develops a one-sector aggregate endogenous growth model with intertemporal preference dependence. The resultant model possesses the fundamental property of growth convergence, in the sense that countries with identical parameters regarding technology, preference, and government policy will converge to a steady state with the same (positive) growth rate. A notable tax policy implication of the model is that, even in the absence of externalities, the growth effects of an income tax are shown to be a priori ambiguous and dependent on the relative magnitudes of the tax rate and the tax elasticity of the savings rate.

Zhou, Guofu

TI What Determines Expected International Asset Returns?
AU Harvey, Campbell R.; Solnik, Bruno; Zhou, Guofu.

Zhu, Li

TI The Role of the Discount Rate in Monetary Policy.
AU Rush, Mark; Sellon, Gordon; Zhu, Li.

Zilberman, David

TI A Framework for Analyzing Specific Agricultural Policy Reform. **AU** Just, Richard E.; Rausser, Gordon C.; Zilberman, David.

Zilcha, Itzhak

TI Bargaining in International Trade Under Exchange Rate Uncertainty. **AU** Donnenfeld, Shabtai; Zilcha, Itzhak.

TI The Value of Information: Disadvantageous Risk-Sharing Markets. **AU** Sulganik, Eyal; Zilcha, Itzhak.

Zin, Stanley E.

TI Reverse Engineering the Yield Curve. **AU** Backus, David K.; Zin, Stanley E.

TI Reverse Engineering the Yield Curve. **AU** Backus, David K.; Zin, Stanley E.

Zucker, Lynne G.

PD February 1994. **TI** Intellectual Capital and the Birth of U.S. Biotechnology Enterprises. **AU** Zucker, Lynne G.; Brewer, Marilynn B.; Darby, Michael R. **AA** Zucker: University of California, Los Angeles. Brewer: Ohio State University. Darby: University of California, Los Angeles and

National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 4653; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $5.00. **JE** C23, D20. **KW** Panel Data. Venture Capital. Innovation.

AB We examine the relationship between the intellectual capital of scientists making frontier discoveries, the presence of great university bioscience programs, the presence of venture capital firms, other economic variables, and the founding of U.S. biotechnology enterprises during 1976-1989. Using a linked cross-section/time-series panel data set, we find that the timing and location of the birth of biotech enterprises is determined primarily by intellectual capital measure, particularly the local number of highly productive "star" scientists actively publishing genetic sequence discoveries. Great universities are likely to grow and recruit star scientists, but their effect is separable from the universities. When the intellectual capital measures are included in our poisson regressions, the number of venture capital firms in an area reduces the probability of foundings. At least early in the process, star scientists appear to be the scarce, immobile factors of production. Our focus in intellectual capital is related to knowledge spillovers, but in this case "natural excludability" permits capture of supranormal returns by scientists. Given this reward structure, technology transfer was vigorous without any special intermediating structures. We believe biotechnology may be prototypical of the birth patterns in other innovative industries.