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)

Abramovitz, Moses

PD January 1988. **TI** Thinking About Growth. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 115; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 105. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 111, 031. **KW** Economic Growth. Growth Theory.

AB Economic growth is one of the oldest subjects in economics and one of the youngest. It was a principal concern of the Wealth of Nations, and it filled the thoughts of economists for the next three quarters of a century. As the Victorian Age wore on, however, growth lost its hold on the attention and imagination of the great body of academic economists. It was left to Marx and his followers, whose premature obsession with the demise of capitalism appealed neither to the political tastes nor the scientific bent of the discipline's exponents. And then, after the end of the second World War, following a hundred years of comparative neglect, there was a resurgence of interest and study that has been proceeding with vigor for the last four decades.

Abrams, Richard

PD October 1988. **TI** The Financial Reform in Finland. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/89; International Monetary Fund, Washington, DC 20431. **PG** 27. **PR** No Charge. **JE** 312, 314, 311, 112. **KW** Finland. Financial System. Commercial Banks. Credit.

AB This paper examines the evolution of the Finnish financial system from a restrictive system based on credit limitations and rationing to an open system which relies on indirect, market-oriented policies. The main beneficiaries are found to be the banks and those that previously had restricted access to bank credit. Two major remaining problems are the anti-savings biases associated with the generous tax treatment of household interest payments and the cartel-like system used in providing tax-free deposits to households. The paper also challenges the argument that the reform caused a loss of monetary autonomy.

Acharya, Sankarshan

PD September 1988. **TI** Sequentially Rational Expectations Equilibrium Policies for Managerial Hiring, Compensation, Reviewing, Firing and Tenuring. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 490; 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** 45. **PR** No Charge. **JE** 511, 514, 512. **KW** Incentives. Manager. Corporate Management. Corporations. Shareholders.

AB The mean of the profit process that a manager can normally generate for a Corporation is defined as his capacity with regard to the Corporation. While generating below capacity results reduced profits, generating above capacity involves abnormal costs due to excessive wear and tear of the assets of the Corporation. Since capacities can be estimated only imprecisely, the Principal (shareholders) of a Corporation must solve two serious problems (i) of instructing the managers as to how much to generate, and (ii) of ensuring that the Corporation earns its equilibrium cost of capital over time; in addition to designing optimal incentive schemes. This paper attempts to solve these problems by developing a model of the Corporation that runs over a countable number of regimes, each with multiple number of time periods and managed by a finite-lived, risk-averse incumbent manager.

Aizenman, Joshua

PD October 1988. **TI** Trade Dependency, Bargaining and External Debt. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/90; International Monetary Fund, Washington, DC 20431. **PG** 23. **PR** No Charge. **JE** 441, 443, 421, 411. **KW** International Trade. International Investment. Debt Default.

AB This paper analyzes the factors determining the payment on outstanding debt in the presence of partial defaults, and the feasibility of renewed investment. We show that a higher relative size of sectors with lower substitutability between domestic and foreign products will increase the resource transfer ceiling. Even with a partial default, investment in highly trade dependent sectors with high productivity may be warranted. This investment can be implemented by a marginal relief of the present debt service, in exchange for investment in the proper sector. A way to partially overcome some of the monitoring problems associated with renewed investment is through direct investment.

Alesina, Alberto

TI Voting on the Budget Deficit. **AU** Tabellini, Guido; Alesina, Alberto.

Altig, David

PD September 1988. **TI** Government Debt, Redistributive Fiscal Policies, and the Interaction Between Borrowing Constraint and Intergenerational Altruism. **AU** Altig, David; Davis, Steve J. **AA** Altig: Indiana University. Davis: University of Chicago and Hoover Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-35;

Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 46. **PR** No Charge. **JE** 321, 323, 921. **KW** Government Debt. Borrowing Constraints. Intergenerational Transfers. Capital Accumulation. Altruism.

AB We show how borrowing constraints, intergenerational altruism, and their interaction shape the aggregate savings response to government debt and fiscal policies that redistribute resources between living generations. We also characterize the conditions under which borrowing constraints bind and the altruistic transfer motive operates in terms of the strength of the altruism motive, the shape of the lifetime productivity profile, the willingness to substitute consumption intertemporally, and other factors. Finally, we characterize the dynamic response of aggregate savings to nonneutral government debt policies in economies with binding borrowing constraints.

Aoki, Masahiko

PD September 1987. **TI** The Japanese Firm as an Innovation Institution. **AU** Aoki, Masahiko; Rosenberg, Nathan. **AA** Aoki: Stanford University and University of Kyoto. Rosenberg: Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 106; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 22. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 621, 611. **KW** Innovation. Technology. Industrial Organization.

AB At one level, this paper may be regarded as an exercise in comparative industrial organization. We are primarily interested in accounting for the highly successful performance of Japanese manufacturing firms in the innovation process. In pursuing this goal, however, it will be necessary to "unpack", and to examine critically, some intellectual baggage that has strongly shaped and influenced the approach to innovative activity in the recent past. To the extent that our approach is convincing, it suggests a reordering of focus and emphasis in the study of innovation.

Applegate, D. L.

PD August 1988. **TI** Integral Infeasibility and Testing Total Dual Integrality. **AU** Applegate, D. L.; Cook, W.; McCormick, S. T. **AA** McCormick, Cook: Columbia University. Applegate: Carnegie Mellon University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88517-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 7. **PR** No Charge. **JE** 213, 214. **KW** Dual Integrality. Integer Programming. Directed Graphs. Linear System. Optimization.

AB A number of well known results in combinatorial optimization, such as Hoffman's circulation theorem and the matching theorems of Hall and Tutte, can be interpreted as stating that either a certain linear system has a solution or there exists a simple combinatorial reason why it is insolvable. We give a characterization of total dual integrality in terms of such infeasibility results. This leads to a method for testing total dual integrality which is tractable for small linear systems. In particular, a computer implementation of the method settled a conjecture of Barahona and Mahjoub concerning feedback sets in directed graphs.

Arellano, Manuel

PD November 1988. **TI** Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. **AU** Arellano, Manuel; Bond, Stephen. **AA** Arellano: Institute of Economics and Statistics, Oxford. Bond: Institute for Fiscal Studies, London. **SR** Oxford Applied Economics Discussion Paper: 55; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PG** 52. **PR** No Charge. **JE** 211. **KW** Employment. Monte Carlo Simulation. Panel Data. Method of Moments. Specification Tests.

AB This paper presents specification tests that are applicable after estimating by the generalized method of moments (GMM) a dynamic model from panel data, and studies the practical performance of these procedures using both generated and real data. Our GMM estimator exploits optimally all the moment restrictions that follow from the assumption of no serial correlation in the errors, in an equation which contains individual effects, lagged dependent variables and no strictly exogenous variables. This is extended to cover the case of MA(q) errors and unbalanced panel data. We propose a test of serial correlation based on the GMM residuals and compare this with Sargan tests of overidentifying restrictions and Hausmann specification tests. We perform a limited simulation for 100 units, 7 time periods and two parameters. The results indicate negligible finite sample biases in the GMM estimators and the serial correlation tests are well approximated by their asymptotic counterparts.

PD November 1988. **TI** Testing for Autocorrelation in Dynamic Random Effects Models. **AA** Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 56; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PG** 19. **PR** No Charge. **JE** 211. **KW** Panel Data. Autocorrelation. Dynamic Models. Random Effects. Covariance Restrictions.

AB This paper develops tests of covariance restrictions after estimating by three stage least squares a dynamic random effects model from panel data. The asymptotic distribution of covariance matrix estimates under non-normality is obtained. It is shown how minimum chi-square tests for interesting covariance restrictions can be calculated from a generalized linear regression involving the sample autocovariances and dummy variables. Asymptotic efficiency exploiting covariance restrictions can also be attained using a GLS estimator.

PD November 1988. **TI** An Alternative Transformation for Fixed Effects Models With Predetermined Variables. **AA** Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 57; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PG** 6. **PR** No Charge. **JE** 211. **KW** Fixed Effects Models. Method of Moments. Predetermined Variables.

AB The purpose of this note is to propose an alternative transformation of a fixed effects model which (i) eliminates the individual effects, (ii) preserves the orthogonality among the transformed errors, and (iii) it is very useful in order to obtain in a natural way optimal IV or GMM estimators for models with predetermined variables.

Arnott, Richard

PD February 1988. **TI** Two Essays on Travel Safety I. The Economics of Transportation Safety and Deregulation II.

Congestion Pricing to Improve Air Travel Safety. **AU** Arnott, Richard; Stiglitz, Joseph. **AA** Arnott: Queen's University. Stiglitz: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 27; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 55. **PR** No Charge. **JE** 933, 613. **KW** Air Travel. Airplanes. Transportation. Air Safety.
AB This discussion paper contains two related papers on travel safety. The first, "The Economics of Transportation Safety and Deregulation", addresses three questions: a) In the absence of government intervention, will the level of travel safety provided by the market be socially efficient. If not, what are the sources of market failure?; b) If not enough travel safety is being provided, is there good reason to believe that deregulation has contributed to its underprovision, and if so, why?; c) What should public policy be towards air and road travel safety. The second paper, "Congestion Pricing to Improve Air Travel Safety", expands on one of the themes of the first paper in the context of air travel - that efficient congestion pricing would reduce air travel congestion, which should in turn improve air travel safety.

Arrow, Kenneth J.

PD December 1989. **TI** Certainty Equivalence and Inequivalence for Prices. **AA** Stanford University. **SR** Stanford Institute for Mathematical Studies in the Social Sciences (Economic Series) Technical Report: 538; IMSSS, Encina Hall, Fourth Floor, Stanford University, Stanford, CA 94305. **PG** 38. **PR** $4.00. **JE** 031, 022, 026, 213. **KW** Uncertainty. Flexibility. Hicks. Certainty Equivalence. Expected Utility.
AB John Hicks's Value and Capital argued that firms uncertain about a future price act as if there were some price known for certainty; this is the certainty-equivalent price. The validity of this view under the hypothesis that firms maximize expected utility of profit is examined here. The definition of certainty equivalence is strengthened to demand that a price known for certainty has that value as its certainty-equivalent. In the Value and Capital model of production, where the firm is committed to its plan, the certainty-equivalent model is validated. Indeed, Hicks's additional hypothesis that certainty equivalents are lower than expected values for planned sellers and higher for planned buyers holds if the future prices are independent random variables. However, if flexibility of production is postulated, so that future sales and purchases are not completely determined by present decisions, at least two definitions of certainty equivalence are possible. Neither will necessarily exist; the conditions for existence are explored.

Arthur, W. Brian

PD July 1987. **TI** Competing Technologies: An Overview. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 98; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 15. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 621, 514, 022. **KW** Technology. Competition. Diffusion Process.
AB In each case we can think of these methods or technologies as "competing" for a "market" of adopters (Arthur 1983). They may "compete" unconsciously and passively, like species compete biologically, if adoptions of one technology displace or preclude adoptions of its rivals. Or they may compete consciously and strategically, if they are products that can be priced and manipulated. (In this latter case, following nomenclature introduced in Arthur (1985), we will say they are sponsored). What makes competition between technologies interesting is that usually technologies become more attractive -- more developed, more widespread, more useful -- the more they are adopted. Thus competition between technologies usually becomes competition between bandwagons, and adoption markets display both a corresponding instability and a high degree of unpredictability.

PD September 1987. **TI** Self-Reinforcing Mechanisms in Economics. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 111; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 20. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 022, 026. **KW** Dynamic Systems. Economic States. Enforcement.
AB Dynamical systems of the self-reinforcing or autocatalytic type -systems with local positive feedbacks -- in physics, chemical kinetics, and theoretical biology, tend to possess a multiplicity of asymptotic states or possible "emergent structures". The initial starting state combined with early random events or fluctuations acts to push the dynamics into the domain of one of these asymptotic states and thus to "select" the structure that the system eventually "locks into". My purpose in this paper is to look at corresponding dynamical systems in economics. The literature covers a wide range of topics; therefore I will not claim to give a complete survey. My aim is to show that the presence of self-reinforcing mechanisms, in very different problems drawn from different sub-fields of economics, gives rise to common themes, common features. I will note analogies with physical and biological systems; and I will illustrate with theory wherever it is available.

Auerbach, Alan J.

PD December 1988. **TI** Retrospective Capital Gains Taxation. **AA** University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 2792; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323. **KW** Tax Reform. Taxes. Capital Assets. Capital Gains.
AB This paper presents a new approach to the taxation of capital gains that eliminates the deferral advantage present under current realization-based systems, along with the lock-in effect and tax arbitrage possibilities associated with this deferral advantage. The new approach also taxes capital gains only upon realization but, by effectively charging interest on past gains when realization finally occurs, eliminates the incentive to defer such realization. Unlike a similar scheme suggested previously by Vickrey, the present one does not require knowledge of the potentially unobservable pattern of gains over time. It thus is applicable to a very broad range of capital assets.

Avery, Robert

PD August 1988. **TI** Risk-Based Capital and Off-Balance Sheet Activities. **AU** Avery, Robert; Berger, Allen. **AA** Avery: Cornell University. Berger: Board of Governors of the Federal Reserve. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 35; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 25. **PR** No Charge.

JE 312, 315, 311. **KW** Bank Risk. Credit. Risk. Capital. Banks.
AB The risk-based capital proposal requires that banking organizations hold a capital buffer against off-balance sheet activities. Theory suggests that counterparty guarantees, contracts such as standby letters of credit and loan commitments, increase bank risk but may be associated with reduced risk because of what they may signal about the credit quality of the bank or its counterparties. The empirical evidence suggests that standbys are associated with increased risk, while commitments may be associated with decreased risk. The latter result calls into question the treatment of commitments under risk-based capital which, if behavioral patterns do not change, would impose nearly double the lifetime capital requirements on loans under commitment as other loans. For market risk contracts, items such as interest rate swaps and commitments to purchase foreign exchange that are used either to hedge or speculate on market price movements, little can be determined from theory about the risk to banks and the data show no statistically significant relationship with bank risk.

PD August 1988. **TI** Loan Commitments and Bank Risk Exposure. **AU** Avery, Robert; Berger, Allen. **AA** Avery: Cornell University. Berger: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 36; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 25. **PR** No Charge. **JE** 315, 312. **KW** Loan Commitments. Moral Hazard. Credit Rationing. Banks. Risk.
AB Loan commitments are shown to increase a bank's risk exposure, since they obligate the bank to issue future loans under terms they would otherwise refuse in some states of nature. Loan commitments are also subject to moral hazard and adverse selection problems because these contracts must be signed in advance of the loans, when less information is available. These problems may add to bank risk exposure by causing the bank to finance riskier projects than would otherwise be chosen. However, moral hazard and adverse selection may also cause banks to ration commitment contracts more stringently than spot loan contracts. If riskier borrowers are more often rationed out of the commitment market than the spot market, then loans made under commitment can be either riskier or safer than spot market loans. The empirical results show that the association between commitments and bank performance is weak, but that when other loan characteristics are controlled for, loans issued under commitment appear to have better than average performance. This suggests that either little risk is generated by commitments or that the risk that is generated is offset by the rationing of riskier borrowers out of the commitment market.

Backus, David K.

PD November 1988. **TI** On the Denomination of Government Debt: A Critique of the Portfolio Balance Approach. **AU** Backus, David K.; Kehoe, Patrick J. **AA** Backus: Federal Reserve Bank of Minneapolis. Kehoe: Federal Reserve Bank of Minneapolis and University of Minnesota. **SR** Federal Reserve Bank of Minneapolis Staff Report: 116; Research Department, Federal Reserve Bank of Minneapolis, 250 Marquette Avenue, Minneapolis, MN 55480. **PG** 25. **PR** No Charge. **JE** 322, 321, 311, 131, 431. **KW** Exchange Rates. Interest Parity. Fiscal Policy. Government Debt. Monetary Policy.
AB We show that some classes of sterilized interventions have no effect on equilibrium prices and quantities. The proof does not require complete markets, Ricardian equivalence, monetary neutrality, or the law of one price. Moreover, regressions of exchange rates or interest differentials on variables measuring debt's currency composition contain no information about the effectiveness of such interventions. Other interventions require changes in monetary and fiscal policy; their effects depend, generally, on the influence of these changes on the economy and not on the intervention alone. In short, sterilized intervention is not, as the portfolio balance approach indicates, an extra policy instrument.

Bagwell, Kyle

PD September 1988. **TI** A Theory of Managed Trade. **AU** Bagwell, Kyle; Staiger, Robert W. **AA** Bagwell: Northwestern University. Staiger: Stanford University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 801; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 48. **PR** No Charge. **JE** 422, 421, 411, 026. **KW** Repeated Games. Protectionism. Incentives. Cooperative Equilibrium. International Trade.
AB This paper proposes a theory that predicts low levels of protection during periods of "normal" trade volume coupled with episodes of "special" protection when trade volumes surge. This dynamic pattern of protection emerges from a model in which countries choose levels of protection in a repeated game setting facing volatile trade swings. High trade volume leads to a greater incentive to unilaterally defect from cooperative tariff levels. Therefore, as the volume of trade expands, the level of protection must rise in a cooperative equilibrium to mitigate the rising trade volume and hold the incentive to defect in check.

PD October 1988. **TI** A Theory of Managed Trade. **AU** Bagwell, Kyle; Staiger, Robert W. **AA** Bagwell: Northwestern University. Staiger: Stanford University and Hoover Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-39; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 60. **PR** No Charge. **JE** 422, 411, 323, 026. **KW** Trade Policy. Incentives. Protectionism. Repeated Games. Tariffs.
AB See addtional entry under this author and title.

PD November 1988. **TI** A Theory of Managed Trade. **AU** Bagwell, Kyle; Staiger, Robert W. **AA** Bagwell: Northwestern University. Staiger: Stanford University. **SR** National Bureau of Economic Research Working Paper: 2756; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 422, 421, 026. **KW** Protectionism. Repeated Game. Trade Volume. Tariff. Cooperative Game.
AB See addtional entry under this author and title.

Ballard, Charles L.

PD February 1987. **TI** Marginal Efficiency Cost Calculations: Differential Analysis vs. Balanced-Budget Analysis. **AA** Stanford University and Michigan State University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 93; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 47. **PR** No Charge to members of non-profit institutions, $3.00 all others. **JE** 323, 921, 024, 022. **KW** Taxes. Tax Effects. Welfare Analysis. Consumers.

AB When economists evaluate the effect of a tax on the well-being of consumers, they typically make one of two different types of calculation. "Differential" calculations involve comparing the effects of a distorting tax with a hypothetical nondistorting tax that raises the same amount of revenue. "Balanced budget" calculations involve comparing the effects of a distorting tax at different levels of revenue. The two types of calculation are fundamentally different, although this has not been widely recognized to date by economists. In this paper, the differences between the two types of analysis are discussed, and a number of calculations of both types are made. The calculations involve a simulation model that includes labor income taxes and consumer sales taxes. In all cases, the results depend on the initial tax rates and the responsiveness of the taxed activities.

Banks, Jeffrey S.

PD September 1988. **TI** Allocating Uncertain and Unresponsive Resources. **AU** Banks, Jeffrey S.; Ledyard, John O.; Porter, David P. **AA** Banks: University of Rochester. Ledyard: California Institute of Technology. Porter: University of Arizona. **SR** Caltech Social Science Working Paper: 680; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 48. **PR** No Charge. **JE** 511, 611, 514, 215, 022. **KW** Design Mechanisms. Uncertainty. Auctions. Resource Allocation.

AB We identify an important class of economic problems that arise naturally in several applications: the allocation of multiple resources when there are uncertainties in demand or supply, unresponsive supplies (no inventories and fixed capacities), and significant demand indivisibilities (rigidities). Examples of such problems include scheduling job shops, airports or super-computers, zero-inventory planning, and the allocation and pricing of NASA's planned Space Station. We show that the two most common organizations used to deal with this problem, markets and administrative procedures, can perform at very low efficiencies (60-65 percent efficiency in a seemingly robust example). Thus, there is a need to design new mechanisms that more efficiently allocate resources in these environments. We develop and analyze two that arise naturally from auctions used in the allocation of single dimensional goods.

Bar, Ilan Avner

PD November 1988. **TI** On the Theoretical Foundations of the Permanent Income Hypothesis. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 37-88; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, Tel-Aviv, ISRAEL. **PG** 26. **PR** No Charge. **JE** 022, 023. **KW** Certainty Equivalence. Stochastic Process. Consumption. Uncertainty.

AB In its certainty equivalence form, consumption is proportional to the sum of human and non-human wealth. With labor income uncertainty the proportionality takes the form of homogeneity of consumption with respect to the two components of wealth. In this paper we analyze the stochastic properties of labor income which yield the homogeneity property as the utility maximizing solution. A sufficient condition is derived on the way in which a certain income shift (in time series analysis) or difference (in cross section comparison) preserves the homogeneity result. Application of this condition to some geometric processes and normal distribution of income is made. For other income processes the response of consumption to a certain income movement may be larger, which appears as excess sensitivity.

PD November 1988. **TI** Overdrafts and the Demand for Money. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 34-88; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, Tel-Aviv, ISRAEL. **PG** 44. **PR** No Charge. **JE** 311, 312, 023. **KW** Money Demand. Commercial Banks. Optimal Control. Transaction Costs.

AB This paper presents a general analysis of money demand when net disbursements follow a Wiener process and overdrafting is allowed at some penalty rate. Using recent developments in optimal control theory, the "impulse control" method, a solution for both the target and trigger money levels is presented. This relaxes the assumption that overdrafts are excluded and the trigger level is exogenously fixed at level zero and thus extends the works of Frenkel and Jovanovic (1980) and others. By allowing for a variety of interest rates, the model generates rich dynamics of the money stock. It is shown, for instance, that the short-run interest elasticity of money demand is probably large (in absolute value) and negative, but in the long run this elasticity is much smaller or even positive. It is also argued that inappropriate current definitions of the monetary aggregates, which exclude unused credit, may spuriously generate instability of the money demand. An alternative definition of money stock is suggested which seems to be conceptually more satisfying.

PD January 1989. **TI** Effect of Time Preferences on Indexation. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 2-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 9. **PR** No Charge. **JE** 022, 021. **KW** Wage Contracts. Rate of Time Preference. Pareto Optimal. Wage Indexation.

AB Differences in the rate of time preferences of two transactors can explain why Pareto optimal contracts do not appear to be fully indexed.

Barahona, Francisco

PD June 1988. **TI** On Dual Integrality in Matching Problems. **AU** Barahona, Francisco; Cunningham, William. **AA** Barahona: University of Bonn. Cunningham: Carleton University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88521-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** No Charge. **JE** 213. **KW** Matching Problems. Integrality property. Dual Solutions. Matching Algorithm.

AB Edmonds and Johnson proved an integrality property of optimal dual solutions of matching problems, under the assumption that all the edge-costs are even integers. We show that the same conclusion holds if the costs are integers whose sum around any cycle is even. This result is a consequence of a form of the matching algorithm.

Barrett, Scott

TI Sustainable Development in the Sahel: Two Essays. **AU** Pearce, David W.; Markandya, Anil; Barrett, Scott;

Heady, Christopher J.

Barron, Terence M.

PD September 1988. **TI** Optimal Information Systems for the Seller of a Search Good. **AU** Barron, Terence M.; Saharia, A. N. **AA** Barron: University of Rochester. Saharia: University of Washington. **SR** University of Rochester Managerial Economics Research Center Working Paper: MERC 88-12; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PR** No charge. **JE** 022, 511, 512. **KW** Information Economics. Information Systems. Optimal Measurement. Search Theory.

AB This paper examines an information system design problem faced by the seller of a search good who sells his product in a competitive market to well-informed consumers. The formulation results in a nonlinear optimization problem having a special structure which can be exploited in solving the first-order conditions. Closed-form solutions and comparative statics results are given in the case of a uniformly-distributed attribute, and we provide a numerical example in the case of a normally-distributed attribute.

Barsky, Robert B.

PD December 1988. **TI** Forecasting Pre-World War I Infation: The Fisher Effect Revisited. **AU** Barsky, Robert B.; De Long, J. Bradford. **AA** Barsky: National Bureau of Economic Research. DeLong: Boston University. **SR** National Bureau of Economic Research Working Paper: 2784; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 134, 042. **KW** Inflation. Interest Rates. Expectations. Investment.

AB We consider the puzzling behavior of interest rates and inflation in the United States and the United Kingdom between 1879 and 1913. A deflationary regime prior to 1896 was followed by an inflationary one from 1896 until the beginning of World War I; the average inflation rate was 3.8 percentage points higher in the second period than in the first. Yet nominal interest rates were no higher after 1896 than they had been before. We consider in an information processing context alternative ways of accounting for this failure of interest rates to adjust, for example, the possible beliefs that increases in gold production might be transitory.

Bates, Charles E.

PD January 1989. **TI** Accumulating Sample Path Estimation with Applications to Testing for Unit Roots in GNP. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 221; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 44. **PR** No Charge. **JE** 211, 023. **KW** Unit Roots. Gross National Product. Identification. Unobserved Components. Consistency. Asymptotic Theory. Random Walk.

AB The consistently estimated parameters of a misspecified model depend both on the sample size and the underlying true model, (Domowitz and White '1982(). If the underlying true model is known, (but, say, has unobservable components), the sequence of implied parameters may be deduced as a function of the true parameters. NLS can form the basis of fitting this function to the sequence of estimates of the misspecified parameters for increasing subsample size, (the accumulating sample path). Two consistent forms of this ASP estimator are constructed.

Baumol, William J.

TI Antitrust Policy and High-Technology Industries. **AU** Ordover, Janusz A.; Baumol, William J.

Beider, Perry

PD January 1987. **TI** Comparable Worth in a General Equilibrium Model of the U.S. Economy. **AU** Beider, Perry; Bernheim, B. Douglas; Fuchs, Victor; Shoven, John B. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 88; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 73. **PR** No Charge for non-profit institutions, $3.00 otherwise. **JE** 824, 133, 131, 021. **KW** General Equilibrium. Comparable Worth. Aggregation. Employment. Wages.

AB This paper presents a computable general equilibrium model that simulates the effects on employment, output, wages, and economic efficiency of introducing comparable worth into the United States economy. The model calculates economy-wide aggregate impacts and disaggregated results for individuals grouped by sex, marital status, and education.

Benabou, Roland

PD June 1988. **TI** Using Privileged Information to Manipulate Markets: Insiders, Gurus, and Credibility. **AU** Benabou, Roland; Laroque, Guy. **AA** Benabou: CEPREMAP. Laroque: INSEE, Paris. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 19; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 32. **PR** No Charge. **JE** 026. **KW** Credibility. Information. Asset Value. Repeated Game. Reputation.

AB An agent with privileged information on the future value of an asset (for instance a financial columnist), or who is thought to have such knowledge (a financial "guru") may use it to manipulate the market by making announcements or spreading rumors, and trading secretly before or after these "messages". The crucial problem is of course the credibility of such announcements, given that all participants understand his incentives to mislead the market. To address this problem, we develop a simple model of a financial market where an informed "insider" spreads informations, then embody it into a repeated game of information transmission and reputation. This game, for which we show the existence and uniqueness of a (Markovian, symmetric) sequential equilibrium, constitutes a generalization of Sobel's '1985("Theory of Credibility" to the case where the horizon is infinite, and, most importantly, the sender's private information is imperfect.

Benveniste, Lawrence

PD August 1988. **TI** Bringing New Issues to Market: A Theory of Underwriting. **AU** Benveniste, Lawrence; Spindt, Paul. **AA** Benveniste: Board of Governors of the Federal Reserve System. Spindt: Northwestern University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 39; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 38. **PR** No Charge. **JE** 521, 511, 514, 313. **KW** Public Equity. Shareholders. Incentives. Business Finance.

AB Empirical studies of initial public equity offerings document frequent oversubscription and significant discounting of offer prices from prices expected to obtain in the post-offering market. Why doesn't competition eliminate these features. This paper argues that underpricing arises naturally in the marketing situation faced by a firm going public. In particular, we show that incentive compatibility conditions induce firms, allowed to choose an optimal allocation mechanism for distributing their stock, to underprice their shares in an initial public offering. We also show that, on average, the extent of this underpricing cost can be reduced by introducing an underwriter institution that deals consistently over time with a coalition of investors.

Berger, Allen N.

PD July 1988. **TI** Market Failure and Resource Use: Economic Incentives to Use Different Payment Instruments. **AU** Berger, Allen N.; Humphrey, David. **AA** Berger: Board of Governors of the Federal Reserve System. Humphrey: Federal Reserve Bank of Richmond. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 34; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 60. **PR** No Charge. **JE** 312, 024. **KW** Market Failure. Resource Allocation. Check Accounts.

AB When the private and social costs of an action diverge, a "market failure" occurs and resources are misallocated. Market failure often plays an important role in the choice among payment instruments. This is because of a "float wedge", which changes the private costs to the payor without changing the social (real resource) costs. The float wedge is largest for checks, resulting in negative private costs and overuse of checks. Electronic payments typically have no float wedge and therefore have difficulty competing with checks. Analysis by user group reveals that businesses account for 90 per cent of check float benefits and have the largest market failure. Market failure is small for consumers and government. Interstate banking and government intervention can have only limited effects in reducing the overuse of checks. Checks will predominate until businesses switch to electronics for other reasons, such as automating invoice information with payments.

TI Risk-Based Capital and Off-Balance Sheet Activities.
AU Avery, Robert; Berger, Allen.

TI Loan Commitments and Bank Risk Exposure.
AU Avery, Robert; Berger, Allen.

Bernheim, B. Douglas

PD August 1986. **TI** Taxation and the Cost of Capital: An International Comparison. **AU** Bernheim, B. Douglas; Shoven, John. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 90; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 40. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 522, 122. **KW** Investment. Capital. Production.

AB The sluggish performance of investment in the United States over the last decade must be considered disappointing. Despite the enactment of various investment incentives at the corporate level, OECD statistics reveal that gross fixed capital formation as a percentage of gross domestic product fell slightly from an average of 18.5 per cent between 1971 and 1980 to 17.3 per cent between 1981 and 1984. It is extremely difficult to account fully for these differences. In each country, investment depends upon a variety of factors, including the cost of financial capital, the cost of physical capital, the wage rate, the price level, technology, and government regulations, as well as less tangible aspects of the political and social climate. Of these factors, the cost of financial capital has received perhaps the most attention from economists. Why might the cost of financial capital differ from country to country. There are two possibilities. First, domestic credit conditions (real required rates of return) may differ. Second, every country has a unique system of capital income taxes.

TI Comparable Worth in a General Equilibrium Model of the U.S. Economy. **AU** Beider, Perry; Bernheim, B. Douglas; Fuchs, Victor; Shoven, John B.

PD December 1987. **TI** A Theoretical Analysis of Economic Organization in the Life Insurance Industry. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 133; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 42. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 635. **KW** Insurance. Life Insurance.

AB For more than a century, stock companies and mutual companies have existed side by side in the life insurance industry. Although conditions (e.g. taxes and regulations) have at times seemed to favor one form of organization over the other, neither has become predominant. Yet at present, there does not appear to be a generally accepted theory that would account for the remarkable persistence of the stock/mutual mix.

Bernstam, Mikhail S.

PD October 1988. **TI** Malthus and the Evolution of the Welfare State: An Essay on the Second Invisible Hand Part I. **AA** Hoover Institution, Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-41; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 67. **PR** No Charge. **JE** 914, 921, 824, 822, 821. **KW** Interfamily Transfers. Fertility. Welfare State. Human Capital. Single Mothers.

AB This essay discusses demographic consequences and human costs of interfamily transfers. We focus on intergenerational reproduction of low human capital. The essay begins with insights developed by Malthus almost two centuries ago. A theory of both marital and non-marital fertility, and of dual fertility markets is proposed. Child prices are derived from the analysis of interfamily competition. We design a testable framework of the combined impacts of labor market regulations, income opportunities, and welfare benefits on non-marital fertility. The theory is tested using the United States 1980 Census' Public Use Sample and state-level data. Some examples from the Soviet Union and other countries are used for comparison. Then we discuss and test the impact of single motherhood on labor market income-earning opportunities of American youth. Finally, we offer a hypothesis of the welfare state where poverty programs serve as a pretense for the expansion of middle class transfers.

PD October 1988. **TI** Malthus and the Evolution of the Welfare State: An Essay on the Second Invisible Hand Part II. **AA** Hoover Institution, Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-42; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305.

PG 116. PR No Charge. JE 914, 921, 824, 822, 821. KW Interfamily Transfers. Fertility. Welfare State. Human Capital. Single Mothers.

AB This essay discusses demographic consequences and human costs of interfamily transfers. We focus on intergenerational reproduction of low human capital. The essay begins with insights developed by Malthus almost two centuries ago. A theory of both marital and non-marital fertility, and of dual fertility markets is proposed. Child prices are derived from the analysis of interfamily competition. We design a testable framework of the combined impacts of labor market regulations, income opportunities, and welfare benefits on non-marital fertility. The theory is tested using the United States 1980 Census' Public Use Sample and state-level data. Some examples from the Soviet Union and other countries are used for comparison. Then we discuss and test the impact of single motherhood on labor market income-earning opportunities of American youth. Finally, we offer a hypothesis of the welfare state where poverty programs serve as a pretense for the expansion of middle class transfers.

Besanko, David

TI A Pseudo-Judo Model and Its Implications for Technology Licensing. AU Perry, Martin K.; Besanko, David.

PD November 1988. TI Delegated Law Enforcement and Noncooperative Behavior. AU Besanko, David; Spulber, Daniel F. AA Besanko: Indiana University. Spulber: University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8820; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 39 pages. PR No Charge. JE 916, 022, 025. KW Enforcement. Delegation. Commitment. Law Enforcement. Incentives.

AB The design of incentives for efficient performance of law enforcement agencies is addressed taking into account that enforcement is carried out by delegated authority. The effect of delegation on the enforcer's strategic interaction with potential offenders is examined. The unobservability of law enforcement effort complicates the enforcer's ability to deter offenses by making a commitment to a level of enforcement effort. A Cournot-Nash model of law enforcement is embedded into a delegation framework. Results are compared with the Becker Social Optimum. The model is applied to the selection and enforcement of legal standards and to malfeasance.

Bester, Helmut

PD November 1988. TI Bertrand Equilibrium in a Differentiated Duopoly. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-209; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 22. PR No Charge. JE 022, 611. KW Price Competition. Product Differentiation. Oligopoly.

AB The paper studies the stability of price competition in a horizontally differentiated duopoly. The firms' demand is derived from a distribution of consumer preferences. This description of the consumer sector is applicable to a large class of differentiated commodity markets, including spatial competition models. We show that there is a (pure) price setting equilibrium when consumer tastes are sufficiently dispersed. Further conditions on the dispersedness of preferences guarantee uniqueness of the equilibrium. In addition, we examine the relation between consumer preferences and the competitiveness and efficiency of the equilibrium outcome.

Betancourt, Roger

PD December 1987. TI The Demand for Retail Products and the Household Production Model: New Views on Complementarity and Substitutability. AU Betancourt, Roger; Gautschi, David. AA Betancourt: University of Maryland. Gautschi: INSEAD. SR University of Maryland Department of Economics Working Paper Series: 88-10; University of Maryland, Department of Economics, College Park, MD 20742. PG 35. PR No Charge. JE 633. KW Retail Market. Distribution. Complements. Retail Trade.

AB This paper integrates the economic literature on the household production model with the marketing literature on retailing to derive the demand for retail products in a rigorous framework. Retail firms are viewed as providing customers with a variety of distribution services, where higher levels of these services entail higher costs to the firms that provide them and lower costs for the patrons of these firms. Using a two-stage formulation of the household production model, in which the distribution services provided by retailers are treated as fixed inputs into the household's production activities, we prove a number of results with respect to the own and cross-price elasticities of demand for items in a retail assortment as well as with respect to a new concept -- the distribution services elasticity of demand for items in a retail assortment. Our analysis shows that there are pervasive tendencies toward gross complementarity among items in any given retailer's assortment as well as between the items in any given retailer's assortment and the distribution services offered by the retailer.

PD May 1988. TI Output, Credit and Inflation in a Structuralist Model. AU Betancourt, Roger; Kiguel, Miguel. AA University of Maryland. SR University of Maryland Department of Economics Working Paper Series: 88-44; University of Maryland, Department of Economics, College Park, MD 20742. PG 37. PR No Charge. JE 311, 131, 133, 023. KW Money. Credit. Inflation. Banking System. Macroeconomic Model.

AB This paper examines the roles of money and credit and the effects of changes in inflation on the firm's decisions and on the macroeconomic performance of the economy. It is shown that when firms demand money and credit inflation enters with a negative sign on the firm's supply function. We then develop a macroeconomic model of an open economy with a banking system. When there are uniform reserve requirements, a reduction in the rate of inflation will increase real output and improve the balance of payments. The effects of inflation on output become ambiguous when there are different reserve requirements for time and demand deposits. Finally, we show that in this case financial liberalization will lower real interest rates and increase the level of output.

PD May 1988. TI Credit, Money and Production: Empirical Evidence. AU Betancourt, Roger; Robles, Barbara. AA University of Maryland. SR University of Maryland Department of Economics Working Paper Series: 88-32; University of Maryland, Department of Economics, College Park, MD 20742. PG 23. PR No Charge. JE 521, 311, 511, 514, 315. KW Money. Credit.

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Production.
AB In this paper a simple but critical test for investigating the role of money and credit in production is presented and implemented with data for United States manufacturing. The empirical analysis, which takes place in terms of a restricted CRT function, leads to the conclusion that money and credit are important determinants of output; nevertheless, the hypothesis that either one or both of them can be treated as an input is rejected by the data.

PD October 1988. **TI** Neoconservative Economic Experiments in the Southern Cone: A Review Essay. **AU** Betancourt, Roger; Kiguel, Miguel. **AA** Betancourt: University of Maryland. Kiguel: World Bank, Washington, D.C. **SR** University of Maryland Department of Economics Working Paper Series: 88-48; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 26. **PR** No Charge. **JE** 121, 113. **KW** Neoconservative Experiments. Southern Cone. Developing Countries. Stabilization Policies.
AB In this paper the nature of the neoconservative economic experiments in the Southern Cone of Latin America is briefly exposited. Eight books and monographs on this topic are reviewed and a brief overview of the experiments is presented. In particular, the overview emphasizes an evaluation of the use of the 'tablita' in the stabilization policies and some neglected aspects of the liberalization policies.

Betts, Julian R.

PD November 1988. **TI** Sources of Employment Growth by Occupation and Industry in Canada: A Comparison of Structural Changes in the 1960's and 1970's. **AU** Betts, Julian R.; McCurdy, Thomas H. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 730; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 35. **PR** $3.00 Canada and United States; $3.50 Foreign. **JE** 222, 826, 812, 824. **KW** Information Economy. Input-Output Analysis. Technological Change. Employment. Aggregation.
AB The paper uses input-output and census data from 1961, 1971 and 1981 to decompose the employment changes during each decade into several sources. Decompositions were performed at three levels of aggregation by occupation and industry, including one aggregation designed to assess the rise of the "information economy". The main influences on employment levels have been changes in labor productivity and in the input-output matrix, and changes in the level and composition of final demand. However, the relative strength of the sources of employment change did vary substantially between decades. Shifts in the occupational mix within each industry have had a large effect on the occupational structure of employment, favoring the occupations related to the "information economy". A comparison of employment changes for men and women in the 1970s revealed that while male-female imbalances by occupation declined, the patterns of occupational growth for women reflected the existing distribution of women's employment in 1971.

PD November 1988. **TI** Two Exact, Non-Arbitrary and General Methods of Decomposition Analysis. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 729; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 14. **PR** $3.00 Canada and United States; $3.50 Foreign. **JE** 213, 222. **KW** Input-Output Analysis. Growth Accounting. Structural Change. Decomposition Analysis.
AB A common goal in economics is to attribute changes in a variable (Y) between two points in time to various causes, when the only information available is an equation expressing Y as a matrix product of several variables, and the values of all variables at the two dates. Past methods of decomposing temporal changes into various components are found to suffer from one or more of the following problems: they can be arbitrary due to the uncertainty concerning whether to expand about the initial or final time period, inexact due to a residual term, and specific to cases in which the variable is a product of two matrices. This paper presents two decomposition methods which overcome all three shortcomings of earlier methods.

Birkhaeuser, Dean

TI The Economic Impact of Agricultural Extension: A Review. **AU** Feder, Gershon; Birkhaeuser, Dean; Evenson, Robert.

Blanchflower, David G.

PD August 1988. **TI** Insider Power in Wage Determination. **AU** Blanchflower, David G.; Oswald, Andrew J.; Garrett, Mario D. **AA** Blanchflower: University of Surrey and Centre for Labour Economics. Oswald: Centre for Labour Economics. Garrett: University of Surrey. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 319; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 45. **PR** No Charge. **JE** 824, 832, 833. **KW** Wages. Insiders. Bargaining.
AB The paper argues that wage determination is best seen as a kind of rent sharing in which workers' bargaining power is influenced by conditions in the external labor market. It uses British establishment data from 1984 to show that pay depends upon a blend of insider pressure (including the employer's financial performance and oligopolistic position) and outsider pressure (including external wages and unemployment). Lester's feasible 'range' of wages appears typically to be between 8 per cent and 22 per cent of pay. Estimates of the unemployment elasticity of the wage lie in a narrow band around -0.1.

Blejer, Mario

PD October 1988. **TI** The "Gulliver Effect" and the "Optimal Divergence" Approach to Trade Policies: The Case of Nepal. **AU** Blejer, Mario; Szapary, Gyorgy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/92; International Monetary Fund, Washington, DC 20431. **PG** 11. **PR** No Charge. **JE** 421, 422, 121. **KW** Trade Policy. Developing Countries.
AB The relevant "size" of an economy is affected by its environment. A country could be small in the world economy yet become big in relation to its smaller neighbors, imposing on them its relative price structure and the consequences of its trade policies. We examine here the consequences of such a "Gulliver" effect, looking at the case of Nepal whose economy is closely linked to the economy of India. Since India's protective policies are not optimal for Nepal, we consider the various alternatives for Nepal. The "optimal divergence" is for Nepal to allow the free import of intermediate and capital

goods, while, for import-competing industries, it cannot depart from India's trade policy.

Blough, Stephen R.

PD July 1988. **TI** On the Impossibility of Testing for Unit Roots and Cointegration in Finite Samples. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 211; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 17. **PR** No Charge. **JE** 211. **KW** Unit Roots. Cointegration. Finite Samples. Time Series. Stationarity.

AB Time series with unit roots may be distinguished by the size of the unit root, as measured, for example, by the proportion of the variance of the differences attributable to the random walk component. As the size of the unit root goes to zero, the finite sample distribution of any continuous function of the observations is shown to converge to the finite sample distribution of the function when there is no unit root. This result implies, in particular, that unit root tests cannot distinguish, in finite samples, between series with small unit roots and stationary series, and that cointegration tests cannot distinguish between cointegrated vector series and non-cointegrated vector series which have a linear combination with a small unit root. Monte Carlo experiments show that tests of the null of a unit root may have finite sample probabilities of false rejection approaching 100% when the unit root is small.

PD December 1988. **TI** Differences of Opinion at the Racetrack. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 220; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 35. **PR** No Charge. **JE** 313, 026. **KW** Horseracing. Betting. Market Efficiency. Opinions. Risk.

AB This paper considers the importance of differences of opinion in asset markets as applied to the market for bets on horse races. The horseracing market is well known to display higher rates of return to favorites than to longshots. Ali '1977(proposed two explanations for this phenomenon: risk loving bettors, and heterogeneous beliefs of risk neutral bettors. His argument for the latter possibility is based on an analysis of races between two horses. This paper examines the extension of this result to races with arbitrary numbers of horses finding sufficient conditions on the distribution of beliefs for it to hold. Results are derived for cases where risk loving and heterogeneous beliefs are both present. An empirical investigation is made of the contributions of risk loving and heterogeneous beliefs in explaining data for the 1986 season at Golden Gate Fields. Neither is found to be important: the data do not display the empirical regularity found in other data sets. An errors in variables explanation of this result is discussed.

Blundell, Richard

PD July 1988. **TI** Unemployment Discouraged Workers and Female Labour Supply. **AU** Blundell, Richard; Ham, John; Meghir, Costas. **AA** Blundell and Meghir: University College London. Ham: University of Toronto. **SR** University College London Discussion Paper: 88-19; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 51. **PR** 1.50 pound sterling. **JE** 824, 821. **KW** Labor Supply. Women. Employment. Job Search. Reservation Wage.

AB Although many microeconomic data sets used in empirical female labor supply analysis record a significant percentage of nonworkers actively searching for work, this information is rarely exploited in estimating the parameters of labor supply. Indeed, most empirical studies rely on the simple reservation wage condition to complete the model specification. If nonworkers who are searching can be interpreted as individuals who would like to work but who have not yet received a suitable job offer, then the reservation wage condition cannot hold for these nonworkers. Moreover, if search costs are nonzero some nonworkers who perceive only a small chance of obtaining employment will be discouraged from searching even though they would like to work. Our objective here is to exploit the availability of sample separation information on searchers among the female nonworkers in the United Kingdom Family Expenditure Survey in order to separately identify the factors determining the employment probability and the participation probability and to estimate the parameters of the underlying labor supply model.

Boadway, Robin W.

PD December 1988. **TI** Optimal Public Sector Employment Policy with Endogenous Involuntary Unemployment. **AU** Boadway, Robin W.; Marchand, Maurice; Pestieau, Pierre. **AA** Boadway: Queen's University. Marchand: CORE, Universite Catholique de Louvain. Pestieau: Universite de Liege and CORE. **SR** Queen's Institute for Economic Research Discussion Paper: 736; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 37. **PR** $3.00 Canada and United States; $3.50 Foreign. **JE** 822, 824. **KW** Involuntary Unemployment. Public Policy. Employment. Public Sector.

AB This paper analyzes optimal employment and wage policies in the public sector in a model with endogenous involuntary unemployment. A public sector is introduced into models where shirking or turnover costs are present and optimal wage and employment policies are derived. In both models, the shadow wage generally differs from the market wage, but it may be either higher or lower depending upon the parameters of the problem and whether or not there is free entry in the private sector. Once wage subsidies are allowed as a policy instrument, the case for an active employment policy vanishes in the turnover case but not in the shirking case.

PD December 1988. **TI** Problems with Integrating Corporate and Personal Income Taxes in an open Economy. **AU** Boadway, Robin W.; Bruce, Neil. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 735; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 44. **PR** $3.00 Canada and United States; $3.50 Foreign. **JE** 321, 323, 921, 521. **KW** Personal Taxes. Corporate Taxes. Small Open Economy. Fiscal Policy. Taxes.

AB This paper analyzes the case for integration in a small open economy when all firms and households exploit tax arbitrage opportunities to the fullest possible (legal) extent. The analysis shows that integration does not accomplish the objectives that have been attributed to it. Instead of eliminating the double taxation of equity income, it simply removes the primary taxation of savings done through the corporation. It has no effect on the investment decision in an open economy; it is distorted by the corporate tax whether or not there is integration. The analysis also has important implications for the relative desirability of an income versus a consumption tax at the personal level and for the design of the corporate tax itself.

Bodie, Zvi

PD October 1988. **TI** Pension Fund Investment Policy. **AA** Boston University. **SR** National Bureau of Economic Research Working Paper: 2752; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 522, 514, 511, 313. **KW** Pensions. Investment. Pension Funds.

AB The purpose of this paper is to survey what is known about the investment policy of pension funds. Pension fund investment policy depends critically on the type of plan: defined contribution versus defined benefit. For defined contribution plans investment policy is not much different than it is for an individual deciding how to invest the money in an Individual Retirement Account (IRA). The guiding principle is efficient diversification, that is, achieving the maximum expected return for any given level of risk exposure. The special feature is the fact that investment earnings are not taxed as long as the money is held in the pension fund. This consideration should cause the investor to tilt the asset mix of the pension fund towards the least tax-advantaged securities such as corporate bonds.

PD December 1988. **TI** Inflation, Index-Linked Bonds, and Asset Allocation. **AA** Boston University. **SR** National Bureau of Economic Research Working Paper: 2793; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 314, 312, 311, 313. **KW** Financial Innovation. Indexation. Inflation. Pensions. Bonds. Portfolios.

AB The recent introduction of CPI-linked bonds by several financial institutions is a milestone in the history of the United States financial system. It has potentially far-reaching effects on individual and institutional asset allocation decisions because these securities represent the only true long-run hedge against inflation risk. CPI-linked bonds make possible the creation of additional financial innovations that would use them as the asset base. One such innovation that seems likely is inflation-protected retirement annuities. The introduction of index-linked bonds eliminates one of the main obstacles to the indexation of benefits in private pension plans. A firm could hedge the risk associated with a long-term indexed liability by investing in index-linked bonds with the same duration as the indexed liabilities.

Boersch, Supan Axel

PD December 1988. **TI** The Dynamics of Living Arrangements of the Elderly. **AU** Boersch, Supan Axel; Kotlikoff, Laurence; Morris, John N. **AA** Boersch-Supan: Harvard University. Kotlikoff: National Bureau of Economic Research. Morris: Hebrew Rehabilitation Center for the Aged. **SR** National Bureau of Economic Research Working Paper: 2787; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 918, 921. **KW** Elderly. Aging. Health. Family.

AB This paper uses a new data set to study the choice of living arrangements of some 3000 Massachusetts elderly between 1982 and 1986. The data have a number of unique features; they are longitudinal and combine detailed information on health with information on economic status and family relations. This paper considers the influence on living arrangements of alternative measures of health (subjective versus functional abilities versus diagnosed condition), incomes and marital status of parents, and the number and sexes of children. It also examines the extent to which changes in health and the death of a spouse trigger changes in living arrangements and how rapidly such changes occur.

PD January 1989. **TI** A Dynamic Analysis of Household Dissolution and Living Arrangement Transitions by Elderly Americans. **AA** Fachbereich Wirtschafts and Sozialwissenschaften. **SR** National Bureau of Economic Research Working Paper: 2808; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 918, 921. **KW** Elderly. Aging. Households. Family.

AB This paper exploits the new nonresponse files of the Panel Study of Income Dynamics in order to study living arrangement transitions of elderly Americans. The focus of the paper is an estimate of the probability of household dissolution, i.e., the probabilities of transitions from living independently to living with adult children or other related or unrelated persons and the probability of becoming institutionalized, and an investigation of the factors causing such transitions.

Bogart, William T.

PD August 1988. **TI** A Short Treatise on the Property Tax with some Observations on the Slerp Commission Property Tax Recommendations. **AU** Bogart, William T.; Bradford, David F. **AA** Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 24; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 32. **PR** No Charge. **JE** 931, 921, 324. **KW** Property Tax. Capitalization. Economic Development. Urban Economics.

AB The incidence and incentive effects of the property tax are examined in this paper. The effect of capitalization in mitigating the apparent regressivity of the property tax is emphasized. The role of the property tax as a deterrent to investment in high tax rate areas is examined. Finally, a proposal for the separate treatment of new construction (STNC) is presented as a way of addressing the negative incentives of the tax without providing a windfall gain or loss to current property owners.

PD August 1988. **TI** The Diversity of Local Governments: Some Evidence and Its Implications. **AA** Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 26; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 27. **PR** No Charge. **JE** 324, 841. **KW** Public Services. Municipal Institutions. Public Spending. Local Governments.

AB This paper examines the implications of variations in the demographic composition and political structure of municipal governments on the estimation of the demand for local public spending. It presents evidence of significant heterogeneity among a subset of New Jersey municipalities. It also gives several examples of the problems caused by ignoring this heterogeneity when estimating the demand for local public spending.

Bollino, Andrea

PD August 1988. **TI** Italian Household Demand for Monetary Assets and Government Debt. **AU** Bollino, Andrea; Rossi, Nicola. **AA** Bollino: Bank of Italy. Rossi: International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/76; International Monetary Fund, Washington, DC 20431. **PG** 28. **PR** No Charge. **JE** 921, 313, 311, 022. **KW** Households. Italy. Public Debt. Monetary Policy.

AB The composition of Italian household wealth has undergone significant changes in the last decade, partly reflecting the growth of public debt and monetary policies aimed at encouraging its absorption by the household sector. Within a theoretical framework consistent with the "money in the utility function" approach, this paper investigates household preferences for liquidity services provided by short-term financial assets. In the attempt to explain the factors underlying those changes, the empirical analysis provides information on the pattern of substitution for the main components of financial wealth and permits analysis of a variety of government interventions in asset markets.

Boltho, Andrea

PD November 1988. **TI** Did Policy Activism Work. **AA** Magdalen College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 60; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PG** 34. **PR** No Charge. **JE** 133, 321, 041, 311, 023. **KW** Economic Growth. Stabilization. Business Cycles.

AB Whether macroeconomic policy activism dampens or exacerbates business cycles remains a major unresolved question in economics. This paper looks at the issue by comparing the degree of cyclical stability in a number of industrialized countries over three periods (1870-1913, 1922-37 and 1950-79), two of which were little affected by demand management, while the third saw a much greater degree of policy involvement. The evidence strongly suggests that the 1950-79 years witnessed an unprecedented degree of cyclical stability. Neither problems of data reliability, nor the influence of the world business cycle, nor the smaller role of agriculture appear to be responsible for this. The major reason would seem to be the much greater influence of government operating via automatic stabilizers, discretionary policies and, most importantly perhaps, through inducing a radical change in the climate of expectations.

Bolton, Patrick

PD December 1988. **TI** Decentralization, Duplication and Delay. **AU** Bolton, Patrick; Farrell, Joseph. **AA** Bolton: Harvard University. Farrell: University of California, Berkeley and the Hoover Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-49; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 43. **PR** No Charge. **JE** 026, 611, 022. **KW** Coordination. Decentralization. Economic Organization. Game Theory. Private Information. Industrial Organization.

AB We argue that decentralization's advantages in finding low-cost solutions are achieved at the cost of coordination problems, which typically imply duplication of effort, delay, or both. Consequently, decentralization is desirable when there are large numbers, and when there is little urgency or a great deal of private information, but is strictly undesirable in urgent problems when private information is less important.

Bond, Stephen

TI Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. **AU** Arellano, Manuel; Bond, Stephen.

Boskin, Michael J.

PD February 1987. **TI** The Financial Impact of Social Security by Cohort. **AU** Boskin, Michael; Puffert, Douglas. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 91; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 58. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 915, 921. **KW** Social Security. Retirement. Consumers. Demographics.

AB This paper examines the financial impact of the retirement portion of the Social Security system from the perspectives of individual households, entire age cohorts, and aggregate system finances. We present, for typical families and entire cohorts, the expected present value of the transfers likely to accrue under Social Security (the difference between the expected present value of benefits and taxes), the rate of return on Social Security taxes paid, and the aggregate real discounted present value of benefits paid out and taxes received by the system as a whole under alternative economic and demographic assumptions.

PD March 1987. **TI** Perspectives on the Tax Reform Act of 1986. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 87; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 20. **PR** No Charge for non-profit institutions, $3.00 otherwise. **JE** 323, 322. **KW** Tax Reform. Income Taxes. Budget Deficits. Tax Policy. Monetary Policy.

AB The Tax Reform Act of 1986 was the most sweeping tax reform in decades, but came rapidly on the heels of six other tax changes in the previous eight years, and in the midst of an intense national debate concerning large and potentially pernicious budget deficits. These remarks highlight what I believe to be the most important general issues with respect to the 1986 Tax Reform Act, its likely impact on the economy and the likely evolution of tax policy. After discussing the major features of the Tax Reform Act, the paper points out that the reform is so complex that its net impact on the economy, both in the long run and the short, will reflect the interaction of numerous features, as well as the interaction of the tax rules with monetary policy and general economic conditions.

PD May 1987. **TI** Future Social Security Financing Alternatives and National Saving. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 96; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 58. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 915, 322. **KW** Social Security. National Saving. Government Expenditures.

AB While the short-run financial status of Social Security is secure, its long-run financial status is very uncertain. The retirement and disability part of the system (OASDI) is projected to be in long-run actuarial deficit under the Social Security Administration's intermediate economic and demographic forecasts. This paper documents how various systematic deviations from, or return to, pay-as-you-go finance of the Social Security system may affect net national saving.

PD July 1987. **TI** Concepts and Measures of Federal Deficits and Debt and Their Impact on Economic Activity. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 99; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 50. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 221, 322. **KW** National Income Accounts. Government Policy. Budget Deficit. Government Expenditures.

AB This paper introduces extensions of the National Income Accounts to include a consistent treatment of consumer durables and government capital in the measurement of consumption and income, and explicitly tests alternative propositions concerning the effects of government financial policy on real economic activity. The paper discusses adjustments to various measures of the budget deficit, national debt, or government "net worth". These include separating government tangible investment from consumption, accounting for government financial assets, inflation adjustments, etc.

PD July 1987. **TI** Government Saving, Capital Formation and Wealth in the United States, 1947-1985. **AU** Boskin, Michael; Robinson, Marc S.; Huber, Alan. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 103; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 66. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 224, 322, 324. **KW** National Wealth. Government Assets.

AB This paper presents new updated and improved estimates of various components of governments' contribution to national wealth and its growth in the post-war period.

PD February 1988. **TI** Economic Issues in the Taxation of Mutual and Stock Life Insurance Companies. **AU** Boskin, Michael J.; Shoven, John; Smart, Scott. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 126; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 39. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 314, 323. **KW** Financial Markets. Taxes. Financial Intermediaries.

AB Financial intermediaries play an extremely important role in all advanced economies, including the United States. Such intermediaries, including commercial and investment banks, insurance companies, and savings and loans, account for a substantial fraction of activity in capital markets. Hence, the taxation of income generated by and flowing through financial intermediaries is an important aspect of the efficiency with which financial markets operate in the economy. In particular, we are interested in the nature of any tax-induced distortions in the allocation of investment caused by the taxation of financial intermediaries.

PD April 1988. **TI** An Analysis of Postwar U.S. Consumption and Saving. **AU** Boskin, Michael J.; Lau, Lawrence J. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 130; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 90. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 921, 023. **KW** Households. Aggregation. Heterogeneity. Household Behavior. Consumption. Representative Agent.

AB A new empirical analysis of aggregate United States consumption and saving for the period 1947-80 is presented. The model is based on the theory of exact aggregation. It recognizes explicitly that households with different characteristics may be heterogeneous in their behavior and that aggregate behavior may depend on the changing composition of households by characteristics and therefore may not be adequately portrayed by a representative consumer, but otherwise it imposes minimal assumptions on household behavior. The model integrates longitudinal and cross-sectional microeconomic data on household characteristics with the traditional aggregate time-series data. Various hypotheses on consumption, such as age independence, proportionality to wealth, and price independence, are tested and rejected. Strong evidence of relative price effects and a systematic variation of aggregate consumption with changing age distribution of wealth in the economy is found.

PD May 1988. **TI** Issues in the Measurement and Interpretation of Saving and Wealth. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 132; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 35. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 221, 224. **KW** National Income Accounting. National Savings. Savings.

AB More comprehensive measures of saving are developed and compared to the traditional NIPA estimates. While there are substantial difficulties in developing such augmented measures of national saving, various data sources and estimation methodologies all conclude that adjustments for net saving in durables, government capital, capital gains and losses, revaluations, etc. are substantial. The government capital and durables adjustments, for example, raise the NIPA estimate of net national saving in 1985 from 4.7 per cent to 8.8 per cent.

PD July 1988. **TI** Lessons From the United States Economy in the 1980s and Their Applicability to Europe. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 137; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 50. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 051, 113, 122. **KW** Reagan Program. Economic Growth.

AB Whether one calls it a revolution, an experiment, or merely an episode, the economic program of Ronald Reagan, both as proposed and implemented, presents a challenge and opportunity to the rest of the world. Since economic, political, demographic and social circumstances differ widely among nations, some parts of the Reagan program that were sensible and successful in the United States may not be immediately applicable elsewhere. However, many others are not only applicable to other economies but are likely to be even more successful in their circumstances.

Boughton, James M.

PD October 1988. **TI** Commodity Prices as a Leading Indicator of Inflation. **AU** Boughton, James M.; Branson, William H. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/87; International Monetary Fund, Washington, DC 20431. **PG** 27. **PR** No Charge. **JE** 132, 134, 227. **KW** Inflation. Auctions. Consumer Price Index.

AB Commodity prices may be a leading indicator of inflation, because of the relative importance of flexible auction markets for the determination of these prices. Empirical tests using data for the large industrial countries as a group suggest that changes in commodity prices tend to lead those in consumer prices, and that the inclusion of commodity prices significantly improves the fit of regressions of a multi-country consumer price index. However, there does not appear to be a reliable long-run relationship between the level of commodity prices and the level of consumer prices.

PD October 1988. **TI** Commodity Prices as a Leading Indicator of Inflation. **AU** Boughton, James M.; Branson, William H. **AA** Boughton: International Monetary Fund. Branson: Princeton University. **SR** National Bureau of Economic Research Working Paper: 2750; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 227, 134, 132. **KW** Inflation. Commodity Prices. Price Indexes.
AB See addtional entry under this author and title.

Bound, John

PD January 1989. **TI** The Health and Earnings of Rejected Disability Insurance Applicants. **AA** The University of Michigan. **SR** National Bureau of Economic Research Working Paper: 2816; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 822, 915, 921. **KW** Social Security. Disability Insurance. Health. Employment.
AB Applicants for Social Security Disability Benefits who fail to pass the medical screening form a natural 'control' group for beneficiaries. Data drawn from the 1972 and 1978 surveys of the disabled done for the Social Security Administration show that fewer than 50 per cent of rejected male applicants work. Typical earnings of those that do are less than 50 per cent of median earnings for other men their age. These data cast doubt on recent econometric work which suggests that the disincentive effects of Disability Insurance have been substantial.

Bradford, David B.

PD July 1988. **TI** An Uncluttered Income Tax: The Next Reform Agenda. **AA** Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 20; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 26. **PR** No Charge. **JE** 323, 321, 113. **KW** Tax Reform. Tax Policy. Taxes.
AB Many countries have undertaken major tax revisions in recent years. The old reform theme: broaden the base and lower the rates, has been translated into political results on a remarkable scale. In the case of the United States, having moved steadily in the direction of consumption-based taxation for many years, recent tax legislation has been informed by an ideal notion of income. This ideal notion of income is neither simple, nor politically appealing, in some of the crucial details that separate the concepts of income and consumption taxation. Recent experience confirms the tendency of an income tax -- particularly one enacted in a real political context -- to evolve toward ever greater complexity. There are, however, long-term steps that can be taken to move the system in a consumption-tax direction, and in particular toward uniform taxation of the income from capital, an approach that may prove attractive for the United States, and for other countries seeking to simplify their economic rules and enhance economic vitality without sacrificing concern for the poor or other equity objectives.

Bradford, David F.

TI A Short Treatise on the Property Tax with some Observations on the Slerp Commission Property Tax Recommendations. **AU** Bogart, William T.; Bradford, David F.

Brams, Steven J.

PD July 1988. **TI** Optimal Cheating and Inspection Strategies Under INF. **AU** Brams, Steven J.; Davis, Morton D.; Kilgour, Marc D. **AA** Brams: Department of Politics, New York University. Davis: Department of Mathematics, City College of New York. Kilgour: Department of Mathematics, Wilfred Laurier University. **SR** New York University Economic Research Reports: 88-24; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 24. **PR** No Charge. **JE** 114, 026. **KW** Arms Control. Verification. Game Theory. Sequential Game.
AB The Intermediate-Range Nuclear Forces (INF) Treaty allows both superpowers a limited number of short-notice inspections, whereby they can inspect agreed-upon sites suspected of cheating. In modeling this problem, it is postulated that the inspector must decide what sites to inspect as a function of the level of cheating he suspects and the number of inspections he has remaining. The inspectee, who is assumed to have a fixed amount of "cheating resources" that he can allocate across the sites, must decide what level of cheating is optimal at each site. These choices are modeled by a two-person, zero-sum sequential game, in which the payoffs to the inspector and inspectee are based on the amounts of cheating that are discovered from inspections. Maximum/minimax strategies and values are calculated recursively; both analytic results and numerical patterns in computer-generated data are analyzed. The relevance of the findings to the verification of arms-control agreements, and the INF treaty in particular, is assessed.

Branson, William H.

TI Commodity Prices as a Leading Indicator of Inflation. **AU** Boughton, James M.; Branson, William H.

TI Commodity Prices as a Leading Indicator of Inflation. **AU** Boughton, James M.; Branson, William H.

Braun, Phillip

TI Major Macroeconomic Variables and Leading Indexes: Some Estimates of Their Interrelations, 1886-1982. **AU** Zarnowitz, Victor; Braun, Phillip.

Braverman, A.

PD August 1988. **TI** Credit Rationing, Tenancy, Productivity, and Inequality. **AU** Braverman, A.; Stiglitz, J. E. **AA** Braverman: World Bank. Stiglitz: Stanford University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 25; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 29. **PR** No Charge. **JE** 716, 714, 711, 021. **KW** General Equilibrium. Farming. Sharecropping. Credit Rationing.
AB This paper sketches a general equilibrium theory of land tenancy under conditions of credit rationing of small farmers. It explains why, given the same resources, productivity may be lower on farms operated through sharecropping than on owner-run farms, even though sharecropping may be Pareto

efficient; and shows how changes in technology and in publicly provided infrastructure may affect the equilibrium distribution of land under conditions of credit rationing of small farmers. Thus, changes in technology and in publicly provided infrastructure influence national income not only directly, but also indirectly through their effect on tenancy arrangements.

Bresnahan, Timothy F.

PD April 1987. **TI** Empirical Studies of Industries with Market Power. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 95; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 79. **PR** No Charge to members of non-profit institutions, $3.00 all others. **JE** 611, 212. **KW** Market Power. Industrial Organization.

AB This chapter treats econometric studies of market power in single markets and in groups of related markets. The recent increase in the number of such studies and substantial advances in the methods for carrying them out constitute a dramatic shift in the focus of empirical work in the Industrial Organization field. The new literature treated here is based largely on time series data from single industries, or on data from closely related markets. It has taken a markedly different view of what can be observed, and how economic quantities are to be measured, than earlier work did. At some risk of oversimplifying a growing and varied literature, I summarize the new approach as having these central ideas: Firms' price-cost margins are not taken to be observables; economic marginal cost (MC) cannot be directly or straightforwardly observed. The analyst infers MC from firm behavior, uses differences between closely related markets to trace the effects of changes in MC, or comes to a quantification of market power without measuring cost at all.

Broecker, Thorsten

PD October 1988. **TI** Buyer Power and the Coordination of Demand in Bilateral Oligopolies with Price Competition. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-204; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 21. **PR** No Charge. **JE** 611, 514, 511, 022. **KW** Bilateral Oligipoly. Horizontal Mergers. Price Leadership. Homogeneous Product.

AB In this paper, we analyze the demand of large quantities as a cause of buyer power of a firm. It is argued that an appropriate model is a bilateral oligopoly with price leadership on the suppliers' side. It is demonstrated that buyer power is a countervailing power to seller power. Large buyers can profitably coordinate their purchases over more than one period which a small buyer may not be able to do. We thereby also identify incentives for horizontal mergers on the demand side of the market for a homogeneous product.

Bruce, Neil

TI Problems with Integrating Corporate and Personal Income Taxes in an open Economy. **AU** Boadway, Robin W.; Bruce, Neil.

Bruno, Michael

PD November 1988. **TI** Theoretical Developments in the Light of Macroeconomic Policy and Empirical Research. **AA** Bank of isreal. **SR** National Bureau of Economic Research Working Paper: 2757; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 036, 023, 133, 113. **KW** Stabilization Policy. Economic Policy. Rational Expectations. Macroeconomics.

AB The paper surveys the macroeconomic literature of the last decade with emphasis on the implications of the New Classical and Rational Expectations critiques for the Keynesian paradigm and the role of macro policies. This is done on the background of the main macro developments of the 1970s and 1980s as well as the specific lessons of recent high (chronic) inflation processes. The paper takes an eclectic view emphasizing a synthesis that is emerging in which the basic Keynesian view of the existence of market and price coordination failures as well as room for Pareto improving policy intervention are maintained. At the same time the theoretical underpinnings are undergoing substantial change mainly due to a "rational expectations" (rather than 'new classical') reformulation. The new Theory of Economic Policy is also discussed and illustrated in terms of recent stabilization experience.

Bunn, Julie Ann

TI The Economics of Gateway Technologies and Network Evolution: Lessons From Electricity Supply History. **AU** David, Paul; Bunn, Julie Ann.

Burbidge, John B.

PD July 1988. **TI** Asset Holding and Consumption. **AA** McMaster University. **SR** University College London Discussion Paper: 88-18; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 18. **PR** pound sterling 1.50. **JE** 026, 313, 921. **KW** Risk Aversion. Intertemporal Substitution. Portfolio. Savings.

AB This paper explores the relationships between Epstein and Zin's representation of Kreps-Porteus preferences and Selden's ordinal certainty equivalence approach. Among other things, the paper argues that, with or without earnings, the CES functional form assumed by EZ implies that the KP and Selden optima are nearly identical for many sets of parameter values. This offers empirical investigators a way around the unobservability of utility terms (induced by the recursivity in the KP specification) that occur in Euler equations. Moreover, the Selden approximation to KP preferences improves if ones assumes a quasi-homothetic utility function.

Cabral, Luis M. B.

PD March 1987. **TI** On the Adoption of Innovations with "Network" Externalities. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 97; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 20. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 022, 213, 024, 621. **KW** Externalities. Innovation. Welfare Theory. Equilibrium.

AB This paper introduces a simple model of the adoption of an innovation with "network" externalities. We say that there are "network" externalities when one agents' benefit from adopting an innovation increases with the number of other agents adopting that innovation. The focus of the paper is on the equilibrium adoption path of a given innovation. The main results are summarized in three theorems. Theorem 1 proves the existence of equilibrium, Theorem 2 concerns the uniqueness of the equilibrium, and Theorem 3 shows that equilibrium paths are suboptimal.

PD December 1988. **TI** Incentives for Cost Reduction under Price Cap Regulation. **AU** Cabral, Luis M. B.; Riordan, Michael H. **AA** Cabral: Stanford University and New University of Lisbon. Riordan: Boston University and Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 146; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 17. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 613, 621, 022. **KW** Price Cap. Regulation. Incentives. Cost Minimization.

AB We present a formal analysis of the incentives for cost reduction under a regime of price cap regulation. Our main result is that a marginal reduction in the price cap increases the regulated firm's investment in cost reduction. However, very low price caps might destroy investment incentives completely. Therefore, investment is a discontinuous function of the price cap level. Our analysis includes a stylized comparison between price cap regulation and rate-of-return regulation. We show that investment in cost reduction is higher under an optimal price cap regime. However, while expected cost is lower under price cap regulation, the same is not necessarily true for expected price.

Cagan, Philip

PD September 1988. **TI** The 1987 Stock Market Crash and the Wealth Effect. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 406; Department of Economics, Columbia University, New York, NY 10027. **PG** 16. **PR** $5.00. **JE** 131, 133, 224. **KW** Stock Market. Wealth. Economic Activity. Consumption.

AB In October 1987 the stock market crashed, reducing the value of the public's equity holdings by about a half trillion dollars. This sudden decline reduced the market value of the public's wealth significantly. According to a long literature developing the economics of consumption, such a large decline in wealth would reduce consumer expenditures. This literature views wealth as one of the important variables in addition to income determining consumption. Indeed, past studies typically estimated the effect of wealth on consumption to be around 5 percent, which implied that consumer expenditures would drop by ($500 billion times 5 per cent) $25 billion. With multiplier repercussions of (say) two, this implied a sizable $50 billion decline in Gross National Product. In fact consumption and GNP continued a moderate upward trend in the fourth quarter of 1987 and (at the time of writing) through at least 1988. No wealth effect could be detected, though initially it led many forecasters to predict a slowing or even a decline in economic activity.

PD September 1988. **TI** The Leading Indicators and Monetary Aggregates. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 407; Department of Economics, Columbia University, New York, NY 10027. **PG** 16. **PR** $5.00. **JE** 223, 225. **KW** Leading Indicators. Monetary Aggregates. Composite Index.

AB The composite leading index includes the monetary aggregate real M2. In recent years the behavior of all the monetary aggregates has changed, raising questions about their continued usefulness as reliable indicators. This paper evaluates the contribution of M2 and other monetary and financial aggregates to the composite index.

Campbell, John Y.

PD October 1988. **TI** Smart Money, Noise Trading and Stock Price Behavior. **AU** Campbell, John Y.; Kyle, Albert S. **AA** Campbell: Princeton University. Kyle: University of California, Berkeley. **SR** National Bureau of Economic Research Technical Paper: 71; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 311. **KW** Stock Prices. Stock Market. Noise Traders. Stock Returns.

AB This paper derives and estimates an equilibrium model of stock price behavior in which exogenous "noise traders" interact with risk-averse "smart money" investors. The model assumes that changes in exponentially detrended dividends and prices are normally distributed, and that smart money investors have constant absolute risk aversion. In equilibrium, the stock price is the present value of expected dividends, discounted at the riskless interest rate, less a constant risk premium, plus a term which is due to noise trading. The model expresses both stock prices and dividends as sums of unobserved components in continuous time. The model is able to explain the volatility and predictability of United States stock returns in the period 1871-1986 in either of two ways. Either the discount rate is 4 per cent or below, and the constant risk premium is large; or the discount rate is 5 per cent or above, and noise trading, correlated with fundamentals, increases the volatility of stock prices. The data are not well able to distinguish between these explanations.

PD December 1988. **TI** Predictable Bond and Stock Returns in the United States and Japan: A Study of Long-Term Capital Market Integration. **AU** Campbell, John Y.; Hamao, Yasushi. **AA** Campbell: Woodrow Wilson School, Princeton University. Hamao: University of California, San Diego. **SR** Princeton Financial Research Center Memorandum: 100; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 62. **PR** $3.00. **JE** 423, 441. **KW** Stock Market. Interest Rates. Capital Market Integration. Japan. Excess returns.

AB This paper studies the predictability of excess returns on long-term assets over the domestic short-term interest rate in the United States and Japan during the period 1971-87. Long-term assets studied include government bonds and various stock portfolios. The paper finds that similar variables, including the dividend-price ratio and interest rate variables, help to forecast excess returns in each country. There is also some evidence of common movement in expected excess returns across the two countries, which is suggestive of integration of long-term capital markets.

Card, David

PD November 1988. **TI** Unexpected Inflation, Real Wages, and Employment Determination in Union Contracts. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 2768; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 824, 832, 831, 821. **KW** Employment. Unions. Union Contracts. Collective Bargaining.

AB This paper presents new microeconometric evidence on the relevance of nominal contracting for employment determination in the unionized sector. Real wages in long term union contracts contain an unanticipated component that reflects unexpected changes in prices and the degree of indexation. These unexpected wage components provide a convenient tool for separating the causal effects of wages on employment from other endogenous sources of employment and wage variation. The empirical analysis of employment and wage outcomes among collective agreements in the Canadian manufacturing sector reveals that employment and wages are only weakly related. When unexpected changes in real wages are used as an instrumental variable for the contract wage, however, employment is consistently negatively related to wages. The results imply that the institutional structure of wage determination has important effects on the cyclical characteristics and persistence of employment changes.

Carruth, Alan

PD November 1988. **TI** An Empirical Study of Unemployment and the Number of Children in Care. **AU** Carruth, Alan; Oswald, Andrew. **AA** Carruth: Keynes College, University of Kent at Canterbury. Oswald: Centre for Labour Economics, London School of Economics and Oxford Institute of Economics and Statistics. **SR** Oxford Applied Economics Discussion Paper: 59; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PG** 31. **PR** No Charge. **JE** 914, 921. **KW** Unemployment. Child Care. Day Care. Children.

AB The paper uses British county data for the 1980s to try to identify the factors which determine the number of children in care. We employ a methodology for the analysis of panel data, namely, "fixed effects" techniques. A doubling of unemployment appears to be associated with a rise by two thirds in the number of children in care. In this complex and relatively unexplored field, however, all findings are necessarily tentative.

Case, Karl E.

PD October 1988. **TI** The Behavior of Home Buyers in Boom and Post Boom Markets. **AU** Case, Karl E.; Shiller, Robert J. **AA** Case: Wellesley College. Shiller: Yale University. **SR** National Bureau of Economic Research Working Paper: 2748; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 932, 931, 921. **KW** Housing. Homeowners. Housing Prices.

AB A questionnaire survey looked at home buyers in May 1988 in two "boom" cities currently experiencing rapid price increases (Anaheim and San Francisco), a "post-boom" city whose home prices are stable or falling a couple years after rapid price increase (Boston) and a "control" city where home prices had been very stable (Milwaukee). Home buyers in the boom cities had much higher expectations for future price increases, and were more influenced by investment motives. The interpretations that people place on the boom are not usually related to any concrete news event; there are instead oft-repeated cliches about home prices. This suggests that sudden real estate booms have, at least in part, a social, rather than rational or economic, basis. There is evidence for excess demand in boom markets and excess supply in the post-boom market; there appear to be various reasons for this: notions of fairness, intrinsic worth, popular theories about prices, coordination problems, and simple mistakes.

Cecchetti, Stephen

PD November 1988. **TI** Mean Reversion in Equilibrium Asset Prices. **AU** Cecchetti, Stephen; Lam, Pok sang; Mark, Nelson. **AA** Cecchetti, Mark: Ohio State University. Lam: Stanford University. **SR** National Bureau of Economic Research Working Paper: 2762; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 311. **KW** Stock Returns. Stock Market. Asset Pricing. Serial Correlation.

AB Recent empirical studies have found that stock returns contain substantial negative serial correlation at long horizons. We examine this finding with a series of Monte Carlo simulations in order to demonstrate that it is consistent with an equilibrium model of asset pricing. When investors display only a moderate degree of risk aversion, commonly used measures of mean reversion in stock prices calculated from actual returns data nearly always lie within a 60 percent confidence interval of the median of the Monte Carlo distributions. From this evidence, we conclude that the degree of serial correlation in the data could plausibly have been generated by our model.

Chalfant, James A.

TI Modeling Alternative Trade and Macroeconomic Scenarios: Implications for U.S. Agriculture. **AU** Rausser, Gordon C.; Stamoulis, Kostas G.; Love, H. Alan; Chalfant, James A.

PD November 1987. **TI** Estimation and Testing in Demand System with Concavity Constraints. **AU** Chalfant, James A.; White, Kenneth J. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 87-39; #997-1873 East Mall, Vancouver, BC V6T 1W5 CANADA. **PR** $.20 per page Canadian to other than educational institutions. **JE** 211. **KW** Bayesian Statistics. Monte Carlo. Demand Systems.

AB A method for imposing or testing curvature restrictions in demand systems is suggested using Bayesian inference and inequality constrained estimation. The approach makes use of Monte Carlo integration and the approach suggested by Geweke (1986). The result is an inequality constrained estimate of the parameter vector for a demand system, plus an estimate of the probability that the inequality restrictions hold. Application to the United States manufacturing data of Berndt and Wood using the translog cost function illustrates the method.

Chang, Roberto

PD November 1988. **TI** Does International Coordination of Fiscal Deficits Matter. **AA** New York University. **SR** New York University Economic Research Reports: 88-36; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 54. **PR** No Charge. **JE** 321, 431, 411, 023, 113. **KW** Fiscal Policy. Overlapping Generations. Policy Coordination. Budget Deficits. Capital Mobility. Noncooperative Game.

AB Does international coordination of fiscal deficits matter. The answer is clearly negative if Ricardian equivalence holds. But if the world is non Ricardian and financial capital is mobile across countries the coordination of fiscal deficits does matter. This paper studies this problem in the context of a many country overlapping generations model without bequests. With international capital mobility, the fiscal deficit of any country affects the world interest rate and therefore real allocations and private welfare in all countries. Therefore, fiscal deficits have

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external effects, and international coordination of fiscal deficits becomes necessary for efficiency. In the absence of a coordinating scheme, the government of each country ignores the effect of its deficit policy on foreigners and chooses an intertemporal budget deficit policy which maximizes a weighted sum of the welfare of her national citizens. This situation is analyzed by studying a noncooperative dynamic game in which the players are the governments, and their strategies are their fiscal deficit policies.

Charemza, Wojciech

PD January 1989. **TI** Waiting Lists and Disequilibrium Modelling of the Housing Market in Poland, 1955-1986. **AU** Charemza, Wojciech; Quandt, Richard E. **AA** Charemza: University of Leicester. Quandt: Princeton University. **SR** Princeton Financial Research Center Memorandum: 101; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 59. **PR** $3.00. **JE** 932, 052, 132. **KW** Housing. Waiting Lists. Excess Demand. Poland. Communism.

AB The paper reviews the history of housing in Poland since World War II. It then formulates a theoretical model of demand for state and for private housing as well as the supply of labor for the provision of private housing. An econometric model is specified and estimated for the demands and supplies of state and private housing. Parameter estimates and forecasts are reasonable. Policy simulations examine the effect of exogenous variable changes on waiting lists and other endogenous variables.

Chesher, Andrew

PD March 1988. **TI** Asymptotic Expansion of the Information Matrix Test Statistic. **AU** Chesher, Andrew; Spady, Richard. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 48; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 45. **PR** No Charge. **JE** 211. **KW** Information Matrix. Finite Sample. Test Statistic. Monte Carlo. Asymptotic Distribution.

AB The Information Matrix test is shown to have a finite sample distribution which is poorly approximated by its asymptotic Chi square distribution. Approximations to the exact distribution to order O (n (-1)) developed from asymptotic expansions of the Edgeworth and Cornish Fisher types are reported and compared with Monte Carlo estimates of the finite sample distribution of the test. These are superior to the usual Chi square approximation in sample sizes of the magnitude found in applied micro-econometric work.

Chew, Soo Hong

PD November 1987. **TI** Generalized and Implicit Gini Indices. **AU** Chew, Soo Hong; Epstein, Larry. **AA** Epstein: University of Toronto. Chew: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 200; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 11. **PR** No Charge. **JE** 213, 022. **KW** Aggregate Wealth. Wealth. Population.

AB This paper provides axiomatizations for two subclasses of generalized Gini representative incomes first proposed by Donaldson and Weymark. We also axiomatize extensions of these representative incomes for which the degree of inequality aversion along the equally distributed diagonal can depend on the level of aggregate wealth. Our axiomatizations are based on two alternative subpopulation principles.

PD February 1988. **TI** A Unifying Approach to Axiomatic Non-Expected Utility Theories. **AU** Chew, Soo Hong; Epstein, Larry G. **AA** Epstein: University of Toronto. Chew: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 204; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 38. **PR** No Charge. **JE** 022, 026, 213. **KW** Expected Utility Theory. Preferences. Separability.

AB This paper unifies the two principal thrusts in the literature on axiomatic theories of transitive preferences which generalize expected utility theory; namely, the betweenness conforming theories and the rank-dependent theories. The unification is achieved in two respects. First, new axiomatizations are provided for the existing theories based on separability restrictions in outcome space. These axiomatizations bring into clear focus both the similarities and the differences between the existing theories. Second, an axiomatization is provided for a new class of preferences which includes existing classes as special cases.

Chin, Judith

PD November 1988. **TI** Intellectual Property Rights and North-South Trade. **AU** Chin, Judith; Grossman, Gene. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 2769; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 621, 022. **KW** Property Rights. Knowledge. Production.

AB We study the incentive that a government in the South has to protect the intellectual property rights of Northern firms, and the consequences of the decision taken by the South for welfare in the North and for efficiency of the world equilibrium. We conduct our analysis in the context of a competition between a single Northern producer and a single Southern producer selling some good to an integrated world market. In this competition, only the Northern firm has the ability to conduct R&D in order to lower its production costs, but the Southern firm can imitate costlessly if patent protection for process innovations is not enforced by the government of the South. We find that the interests of the North and the South generally conflict in the matter of protection of intellectual property, with the South benefitting from the ability to pirate technology and the North harmed by such actions. A strong system of intellectual property rights may or may not enhance world efficiency.

Choi, Buhmsoo

TI Spurious Regressions and Tests for Cointegration. **AU** Park, Joon; Ouliaris, Sam; Choi, Buhmsoo.

Christopeit, N.

PD September 1988. **TI** On Stochastic "Bang-Bang" Control for Linear Diffusions with Point Process Observations. **AU** Christopeit, N.; Helmes, K. **AA** Christopeit: University of Bonn. Helmes: University of Kentucky. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-100; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 25. **PR** No Charge. **JE** 213. **KW** Linear Stochastic Plant. Optimal Control. Hyperplane.

AB In this paper control of a linear stochastic plant is considered with observations given in form of a point process whose intensity is influenced by the state of the plant. The objective is to steer the system in such a way that the state at a given time T is as close as possible to a prescribed hyperplane. It is shown that in the class of controls which take values in the unit cube and depend only on the past observations, the optimal control is 'full bang to reduce predicted miss'. The analysis also shows that for such problems the separation and certainty equivalence principles hold.

Clague, Christopher K.

PD April 1988. **TI** Capital Utilization in the Heckscher-Ohlin Model with a Continuum of goods. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-22; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 30. **PR** No Charge. **JE** 411, 023. **KW** Capital Utilization. Endowment. Factor Prices. Trade.

AB This paper introduces endogenous capital utilization into the Dorbusch-Fischer-Samuelson model of a continuum of goods, shows the conditions under which factor-price equalization can occur, and describes the possible patterns of trade. For one pattern of trade the paper explores the effects of endowment changes on trade, factor prices and the level of capital utilization and the effects of changes in workers' willingness to engage in shift-work on trade and factor prices. Some of the paradoxes in the prior literature on trade models with endogenous utilization are found to disappear in the continuum-of-goods framework.

PD August 1988. **TI** Comparative Costs and Economic Development. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-46; University of Maryland, Dept. of Economics College Park MD 20742. **PG** 39. **PR** No Charge. **JE** 123, 112, 511. **KW** Comparative Advantage. Developing Countries. Factor-Proportions Theory. Services.

AB This paper argues that comparative advantage between developed and less-developed countries depends in part on organizational and institutional differences between the two types of economies. It is suggested that less-developed countries are especially deficient in running large organizations and highly interdependent production processes and hence tend to have comparative disadvantage in products requiring these features, but on the other hand LDC's tend to have comparative advantage in activities that can be carried out in small organizations in a self-contained manner. This hypothesis is tested, along with the standard factor-proportions theory, by the use of purchasing-power parity data from the International Comparisons Project.

Cochrane, John H.

PD November 1988. **TI** Production Based Asset Pricing. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 2776; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 514, 313, 226, 022. **KW** Asset Pricing. Forward Rate. Transformation. Substitution. Consumption.

AB This paper exploits producer's first order conditions to link asset prices to data on investment, output, etc. through marginal rates of transformation, just as consumer's first order conditions are commonly used to link asset prices to consumption data or proxies through marginal rates of substitution. It presents simulation economies analogous to the consumption based models of Mehra and Prescott (1985) and Backus, Gregory and Zin (1986) that capture the size of the equity premium and the size and cyclical timing of the forward rate term premium.

Cogan, John F.

PD August 1988. **TI** The Evolution of Congressional Budget Decisionmaking and the Emergence of Federal Deficits. **AA** Hoover Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-33; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305-6010. **PG** 82. **PR** No Charge. **JE** 322, 321. **KW** Federal Deficits. Federal Budget. Budget Process. Trust Funds. Taxation. Government Expenditures. Decentralization.

AB This paper examines the role that two key institutional changes made by Congress in its budget decisionmaking processes played in contributing to the persistent World War II budget deficits. The first and most important change was to transform the jurisdiction over general fund expenditures from a highly centralized Congressional committee structure to a widely decentralized committee structure. The spreading of general fund spending authority among many committees has created a common resource problem. In this environment, no individual committee has any incentive to restrain its spending commitments since the total level of spending is beyond any single committee's control. The second institutional change was the creation of tax-financed trust funds. The existence of these funds created a tax bias in the tax writing committees in favor of raising trust fund revenues and against general fund revenues.

Conway, Roger

TI The Stochastic Coefficients Approach to Econometric Modeling, Part III: Estimation, Stability Testing, and Prediction. **AU** Swamy, P. A. V. B.; Conway, Roger; LeBlanc, Michael.

Cook, W.

TI Integral Infeasibility and Testing Total Dual Integrality. **AU** Applegate, D. L.; Cook, W.; McCormick, S. T.

Cooper, Russell

PD March 1988. **TI** Inventories and the Propagation of Sectoral Shocks. **AU** Cooper, Russell; Haltiwanger, John. **AA** Cooper: Hoover Institution, Stanford University. Haltiwanger: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-21; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 38. **PR** No Charge. **JE** 023, 131, 133. **KW** Inventories. Imperfect Competition. Employment. Business Cycles.

AB This paper studies the dynamic properties of an imperfectly competitive economy with inventory holdings. In particular, we focus on the serial correlation in aggregate output and employment produced by the holding of inventories in one sector of the economy and the co-movement between sectors of an economy over the cycle resulting from demand linkages. This model is then contrasted with a representative agent, real business cycle model with inventories. We find that the predictions of these models with regards to the co-movement of employment may differ. Based on this, we present empirical evidence on the co-movement of employment over the business cycle which is consistent with the predictions of the model of imperfect competition with inventory holdings and demand linkages.

Copeland, Brian R.

PD June 1988. **TI** Of Mice and Elephants: The Canada-U.S. Free Trade Agreement. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-16; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 24. **PR** $.20 per page Canadian to other than educational institutions. **JE** 422, 421, 411. **KW** Free Trade. Negotiations. Litigations. Canada. Bargaining.

AB This paper provides a critical assessment of the proposed free trade agreement between Canada and the United States. A review of the theoretical literature on the gains from trade and the empirical literature on bilateral trade liberalization reveals that there should be no presumption that bilateral free trade would be welfare improving for Canada. Moreover, because of uncertainty about future abrogation or contingent protection actions, much of the predicted rationalization of Canadian industry may not occur. If, on the other hand, major investments are made by firms in Canada to take advantage of the agreement, Canada's bargaining position with the United States on trade and other issues is seriously weakened.

Corbae, Dean

PD November 1987. **TI** Cointegration and Tests of Purchasing Power Parity. **AU** Corbae, Dean; Ouliaris, Sam. **AA** Corbae: Yale University. Ouliaris: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-9; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 11. **PR** No Charge. **JE** 431, 134, 133, 411. **KW** Exchange Rates. Nonstationarity. Co-Integration. Purchasing Power.

AB Nonstationarity in the levels of spot exchange rates and domestic and foreign price indices makes the use of conventional tests of the absolute version of purchasing power parity (PPP) inappropriate. If PPP is true, inter-country commodity arbitrage ensures that deviations from a linear combination of spot exchange rates and domestic and foreign price levels should be stationary. Since a cointegrated system allows individual time series to be integrated of order one, but requires a linear combination of the series to be stationary a test of long run PPP is possible using the theory of cointegrated processes. Moreover, PPP provides us with restrictions on the cointegrating vector. The null hypothesis of no cointegration cannot be rejected for all five countries, thus violating the "long-run" absolute version of PPP.

PD November 1987. **TI** Testing a Necessary Condition for Efficiency in the Foreign Exchange Forward Market. **AU** Corbae, Dean; Ouliaris, Sam; Zender, Jaime. **AA** Corbae, Zender: Yale University. Ouliaris: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-24; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 14. **PR** No Charge. **JE** 431, 441, 411. **KW** Exchange Rates. Efficient Markets. Risk Premium. Forward Market.

AB The aim of this paper is to test a general version of the pricing model incorporated in empirical studies of forward market efficiency. In so doing, we test a necessary condition for efficiency which does not require the identification of the risk premium. Accounting for nonstationarity in the spot and forward exchange rates in a regression context allows us to omit a stationary risk premium without asymptotically biasing the coefficient estimates on the included nonstationary variables. Our methods also explicitly account for the heterogeneously distributed and temporally dependent error processes, caused by overlapping data and the peso problem. The empirical results support a necessary condition for market efficiency in the forward exchange market.

PD February 1988. **TI** A Random Walk Through the Gibson Paradox. **AU** Corbae, Dean; Ouliaris, Sam. **AA** Corbae: Yale University. Ouliaris: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-18; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 14. **PR** No Charge. **JE** 131, 133. **KW** Co-Integration. Price Level. Interest Rates.

AB Evidence to support the Gibson Paradox is often given in the form of a simple correlation between the nominal interest rate and the log of price level or in the form of a simple linear regression between these two variables. Authors then show, using standard procedures of statistical inference, that the price level possesses a significant coefficient. We argue that this class of evidence is spurious since the nominal interest rate and the price level (both integrated variables) do not form a cointegrated system.

Corden, W. Max

PD August 1988. **TI** Is Debt Relief in the Interests of the Creditors. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/72; International Monetary Fund, Washington, DC 20431. **PG** 17. **PR** No Charge. **JE** 443, 432, 123. **KW** Incentives. Debt Relief. Debtor Nation. Creditors.

AB This paper considers a number of reasons -- in addition to the "incentives" argument -- why debt relief could be to the advantage of creditors collectively. Principal reasons analyzed are based on the "investment-capacity" and the "default-forestalling" arguments. Debt relief is defined as reduction of the present value of the contractual debt. The paper thus provides an analytical basis for various debt relief proposals that do not require finance or guarantees from creditor governments and for the considerable amount of relief in the form of rescheduling and concerted lending that has already taken place. The free rider problem and the extent to which the market may overcome it is discussed.

Corker, Robert

PD August 1988. **TI** External Adjustment and the Strong Yen: Recent Japanese Experience. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/75; International Monetary Fund, Washington, D.C. 20431. **PG** 31. **PR** No Charge. **JE** 431, 224, 132. **KW** Devaluation. Exchange Rates. Current Account. Japan.

AB The parameters of a conventional model of Japan's current account were found to be stable in the period of the steeply rising yen between the fourth quarter of 1985 and the end of 1987. This suggests that Japan's current account has been adjusting to the strengthening yen in accordance with established historical relationships -- a conclusion that is substantiated by the model's reasonably accurate tracking of the current account in this period. Furthermore, simulations of the model show that the rise in the yen has already made a substantial contribution to correcting Japan's external imbalance.

Corman, Hope

PD December 1988. **TI** Demographic Analysis of Birthweight-Specific Neonatal Mortality. **AU** Corman, Hope; Grossman, Michael; Joyce, Theodore. **AA** Corman: Rider College. Grossman, Joyce: City University of New York and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2804; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 913. **KW** Mortality. Health Resources. Pregnancy.

AB This paper explores the determinants of birthweight-specific neonatal mortality rates across states in the United States in 1980. We are able to explore the interactions between the determinants and birthweight because of the new data available through the National Infant Mortality Surveillance (NIMS). The NIMS links birth and death certificates for each state, resulting in a data base with race-specific neonatal mortality rates by birthweight, and other characteristics. Using a reduced-form model, we find abortion and neonatal intensive care availability to be the most important determinants of overall neonatal mortality. For whites, the two factors are of approximately equal importance in determining neonatal mortality. For blacks, abortion availability has twice the impact of neonatal intensive care. Moreover, our results suggest that neonatal mortality rates could be lowered by policies that reduce the inequality in these health resources across states.

Coughlin, Peter J.

PD August 1987. **TI** Single-Peakedness and Median Voters. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-6; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 8. **PR** No Charge. **JE** 025. **KW** Median Voter. Social Choice.

AB This paper provides the reader with an introduction to the concepts of "single-peakedness" and "median voters". It includes discussions of, examples of, and theorems about the relationship between the two concepts. It also contains an annotated reference section.

PD November 1988. **TI** Economic Policy Advice and Political Preferences. **AA** University of Maryland at College Park. **SR** University of Maryland Department of Economics Working Paper Series: 88-51; Department of Economics, University of Maryland College Park, MD 20742. **PG** title page and abstract page and 27 pages (text and references). **PR** No Charge. **JE** 025. **KW** Economic Policy. Political Preferences. Public Choice. Social Choice.

AB This essay argues that public choice offers an appropriate approach for thinking about economic policy advice. First I discuss the nature of the policy advice that is proffered by economists. Then I specifically suggest that one of the most common modeling features in the public choice literature (viz., the assumption that individuals have political preferences) may be useful in helping us understand the nature of this advice. Finally, I also carry out a tentative exploration of the implications of accepting the perspective that is provided when the suggested modeling feature is used in this context.

Cowan, Robin

PD October 1988. **TI** Nuclear Power Reactors: A Study in Technological Lock In. **AA** New York University. **SR** New York University Economic Research Reports: 88-33; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, NY 10003. **PG** 30. **PR** No Charge. **JE** 621, 723, 635. **KW** Nuclear power. Technology. Increasing returns. Technology Choice. Innovations.

AB Recent theory has made predictions about markets in which several technologies are competing. If the technologies operate under strong dynamic increasing returns, one technology will dominate the market. Further, it is possible that an inferior technology will emerge dominant, especially if, early in the competition, it makes large advances along its learning curve. The history of nuclear power technology is used to illustrate these results. The light water technology is considered by many to be inferior to other technologies, yet it dominates the market for nuclear power reactors. This paper suggests that this is largely due to the early adoption of light water for submarine propulsion by the United States Navy. The resultant heavy development of this technology meant that when a market for civilian nuclear power emerged, light water had a large headstart over other technologies. By the time other technologies were ready to enter the market, light water was entrenched.

Cropper, Maureen

PD May 1988. **TI** Valuing Future Risks to Life. **AU** Cropper, Maureen; Sussman, Frances. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-30; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 23. **PR** No Charge. **JE** 921, 024, 022. **KW** Insurance. Life Risks. Accidents.

AB The empirical literature on valuing risks to life has focused almost exclusively on valuing current risks. One approach to valuing policies that affect mortality risks is to assume that policymakers calculate benefits (costs) as the sum of individual willingnesses to pay for the risk reduction (increase) in question. If so, there are three questions that should be asked. First, to value policies that alter risk of dying today: "How much is a person willing to pay to reduce his current risk of death?" Second, to value risks with a long latency period: "What is a person willing to pay today to reduce his probability of dying n years hence?" Third, "How much are persons alive today willing to pay to increase the survival probabilities of their descendants?" This paper focuses on the last two of these questions.

Cummins, Clint

TI The R&D Master File Documentation. **AU** Hall, Bronwyn; Cummins, Clint; Laderman, Elizabeth; Mundy, Joy.

Cunningham, William

TI On Dual Integrality in Matching Problems. **AU** Barahona, Francisco; Cunningham, William.

Danthine, Jean Pierre

PD October 1988. **TI** On Some Computational Aspects of Equilibrium Business Cycle Theory. **AU** Danthine, Jean Pierre; Donaldson, John D.; Mehra, Rajnish. **AA** Danthine: University of Lausanne. Donaldson: Columbia University.

Mehra: MIT and University of California, Santa Barbara. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 8810; Departement d'econometrie et d'economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne / SWITZERLAND. **PR** No Charge. **JE** 131, 214. **KW** Business Cycles. Computation. Quadratic Approximation.

AB This paper evaluates the accuracy of quadratic approximate methods in the context of a simple real business cycle model. The level of accuracy is found to be very high. On the face of the results reported here we are confident that the different computation methods proposed to date in this literature can be employed interchangeably.

Dasgupta, Partha

PD March 1988. **TI** Priority, Secrecy, Patents and the Socio-Economics of Science and Technology. **AU** Dasgupta, Partha; David, Paul A. **AA** Dasgupta: University of Cambridge. David: Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 127; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 62. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 621, 616, 022. **KW** Science. Technology. Government Policy.

AB If sociologists and historians have studied the character of scientific activity, economists have investigated the preoccupations of technologists. We have now at hand a large and often impressive literature explaining and describing the dynamics of both technological change and scientific progress. But for the most part we have a picture of each in isolation. It has been uncommon to relate the two, to see them at once as endeavors in the production, dissemination and use of knowledge. Thus, while it is universally recognized that the contributions of scientists and technologists are interdependent, we do not understand well the characteristics of this interdependence. We do not know if it is symbiotic, parasitic, or if there is deep mutual conflict between them. This is disturbing, because it implies that such science and technology policies that governments pursue are based on a more fragile understanding of these matters than they perhaps need to be.

David, Paul A.

PD July 1987. **TI** The Hero and the Herd in Technological History: Reflections on Thomas Edison and "The Battle of the Systems". **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 100; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 64. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 723, 042. **KW** Electricity. Technology. Economic History.

AB A master's advice always is compelling. The story to be told here will be about the early period in the development of electric lighting and power supply networks. Since this tale is one whose broad outlines probably are familiar to many readers from previous and more skillful recounting, I must have a special reason to return to it on the present occasion. My motivation lies in the bearing which some less known details of the rivalry between direct current and alternating current systems of electricity supply will be seen to have upon a difficult, far broader issue. That subject concerns the precise place to be accorded individual economic actions in the evolution of modern technological systems.

PD November 1987. **TI** The Economics of Gateway Technologies and Network Evolution: Lessons From Electricity Supply History. **AU** David, Paul; Bunn, Julie Ann. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 119; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 65. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 042, 044, 723, 635. **KW** Technology. Innovation. Electricity.

AB Contemporary economic issues concerning technological innovation and compatibility standardization in emergent "network" industries are illuminated indirectly in this paper, by the examination of the historical development of the technology of electric light and power systems in the United States and Europe during the late nineteenth and early twentieth century. The discussion focuses on the rivalry between the initially incompatible technical formulations (a.c. vs. d.c.) of a system supplying electric lighting and power. In the dynamics of competition between alternative technologies under such conditions, the details of the timing of small historical events could have important and lasting consequences.

PD December 1987. **TI** The Impact of Information Technology Upon Economic Science. **AU** David, Paul A.; Steinmueller, W. Edward. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 121; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 61. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 621, 011, 036. **KW** Computers. Information. Technology.

AB There is a widely shared perception that a new era is dawning in the application of information technology to the conduct of research and teaching in the natural and social sciences. The past two decades have brought very great advances, indeed.

PD December 1987. **TI** Marshallian Factor Market Externalities and the Dynamics of Industrial Localization. **AU** David, Paul; Rosenbloom, Joshua. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 118; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 28. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 931, 022. **KW** Externalities. Urban Economics. Urban Growth. City Size.

AB Despite widespread agreement that one of the distinctive features of the urban economy is the presence of externalities arising from the concentration of economic activities at a physically constrained site, few attempts have been made to explicitly model the effects of city size on the dynamics of urban growth (Miyao '1987(, 4-12). This paper examines a simple deterministic model of local symmetric positive externalities characterizing the local markets for two distinct types of workers who cooperate in producing a good at constant marginal cost.

PD January 1988. **TI** The Economic Analysis of Payoffs From Basic Research -- An Examination of the Case of Particle Physics Research. **AU** David, Paul; Mowery, David; Steinmueller, W. Edward. **AA** David, Steinmueller: Stanford University. Mowery: Carnegie-Mellon. **SR** Stanford Center for Economic Policy Research Discussion Paper: 122; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 83. **PR** No Charge for members of non-profit

institutions, $3.00 otherwise. **JE** 621, 022. **KW** Technology. Economic Gains. Payoffs. Research. Science.
AB The analysis of basic research has received little attention from economists. This report discusses the economics of basic research, devoting particular attention to the economic impacts of basic research in high energy particle physics (HEPP). Although much of the modest literature on economic payoffs from investments in basic research in HEPP and elsewhere has adopted the framework of conventional cost-benefit analysis, identifying critical "events" or discoveries and attributing the value of the applications developed from these discoveries to a related basic research investment, we believe that this analytic framework is inappropriate for the economic analysis of basic research.

TI Priority, Secrecy, Patents and the Socio-Economics of Science and Technology. **AU** Dasgupta, Partha; David, Paul A.

PD November 1988. **TI** Information Technology, Social Communications, and the Wealth and Diversity of Nations. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 148; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 33. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 621, 042, 024, 113. **KW** Information Technology. Compatibility. Public Goods. Coordination Problem.
AB Recent economic analyses of coordination problems and technical interface standards for information and communications networks, suggests some new approaches to the thorny issue of the reciprocal relationship between national economic policies affecting information technology and the perpetuation of historical patterns of national individuality and cultural distinctiveness. In this paper an examination of the public goods problems involved in provision of coordination standards, and of the spontaneous emergence of new standards due to "excess momentum" in systems of exchange characterized by positive network externalities, is extended to treat questions about the private and social value of creating and preserving symbolic (linguistic) standards, and other social and cultural norms of behavior. The appropriate role of the state in protecting or reinforcing institutionalized patterns of human interaction is reconsidered from this perspective.

Davis, Morton D.
TI Optimal Cheating and Inspection Strategies Under INF. **AU** Brams, Steven J.; Davis, Morton D.; Kilgour, Marc D.

Davis, Steve J.
TI Government Debt, Redistributive Fiscal Policies, and the Interaction Between Borrowing Constraint and Intergenerational Altruism. **AU** Altig, David; Davis, Steve J.

Day, Richard
PD December 1988. **TI** Bulls, Bears and Market Sheep. **AU** Day, Richard; Huang, Weihong. **AA** University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8822; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 34 pages. **PR** No Charge. **JE** 313, 131. **KW** Stock Market. Chaos Theory. Excess Demand. Bear Market.
AB A deterministic excess demand model of stock market behavior is presented that generates stochastically fluctuating prices and randomly switching bear and bull markets.

de Bartolome, Charles A. M.
PD November 1988. **TI** Public Education as an Instrument of Redistribution. **AA** New York University. **SR** New York University Economic Research Reports: 88-38; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 27. **PR** No Charge. **JE** 614, 636, 912, 921. **KW** Education. Wealth. Private Goods.
AB The public provision of a private good -- education -- is used as an instrument of wealth redistribution. Direct redistribution is impossible if household wealth is unobservable. However, a household "reveals" its wealth by its house purchase, so that property taxes can be used to effect redistribution. I show that it is optimal to link the property tax with the local public provision of education. The normative predictions are compared with the outcome of a Tiebout-type model and with the actual grants-in-aid schedule of New York State. The model suggests that some private goods should be publically provided.

De Long, J. Bradford
TI Forecasting Pre-World War I Infation: The Fisher Effect Revisited. **AU** Barsky, Robert B.; De Long, J. Bradford.

Deacon, Robert T.
PD March 1987. **TI** An Empirical Model of Fishery Dynamics. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 275B; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 34. **PR** No Charge. **JE** 715, 713, 711, 712. **KW** Fishery. Fishing. Fish Industry. Agriculture. Agriculture Policy.
AB The empirical literature on fishery dynamics has, with few exceptions, adopted a logistic specification of population dynamics. Those models that have used market data on catch and effort for estimation of relevant functions have followed this approach exclusively. Certain aspects of fishery dynamics, e.g., the effect of minimum size limits, are best represented by a multiple-cohort specification, however. Moreover, in certain instances, the logistic approach is inappropriate on biological grounds. Empirical application of the multiple-cohort approach has heretofore been considered impractical due to complexity of the resulting models and limitations on available data. The present paper addresses these difficulties by adopting a discrete time framework and a model of population dynamics that stresses numbers in the population rather than biomass. The result is a model of the commercial harvest which, though nonlinear, is readily estimated. This model is applied to the California abalone fishery, and the resulting estimates are used to analyze trends in the fishery during the postwar period.

Diamond, Jack
PD October 1988. **TI** A Note on the Public Choice Approach to the Growth in Government Expenditure. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/93; International Monetary Fund, Washington, DC 20431. **PG** 20. **PR** No Charge. **JE** 122, 321, 322. **KW** Public Choice. Economies

of Scale. Government.

AB The paper applies an empirical model, based on the economic theory of public choice, to the Group of Seven countries. It is discovered: (a) that deficit financing does appear to contribute to increased real government spending; (b) that the demand for government services as a whole does not appear to be income elastic; (c) that there is some evidence of a productivity lag in the government sectors of Canada, Japan, and the United States, but not those of France, Italy, or the United Kingdom; and (d) that in most countries there is some evidence of economies of scale in the provision of government services.

Diebold, Francis X.

PD September 1988. **TI** Conditional Heteroskedasticity in the Market. **AU** Diebold, Francis X.; Im, Jong; Lee, C. Jevons. **AA** Diebold: Federal Reserve Board. Im: University of Pennsylvania. Jevons: Tulane University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 42; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 24. **PR** No Charge. **JE** 313, 212. **KW** Heteroskedasticity. Autoregressive Conditional Heteroskedasticity. Stock Market. Capital Markets. ARCH.

AB We examine the usefulness and implications of modeling conditional heteroskedasticity in market model residual returns. A key element of our approach is Engle's (1982) model of autoregressive conditional heteroskedasticity (ARCH), which has proven useful in financial markets due to its ability to capture volatility clustering. In order to highlight the salient issues, we first provide a case study of one firm, Wynn-Dixie Stores. Formal testing procedures reveal strong ARCH effects, and their relationship to observed unconditional excess kurtosis, as well as convergence to unconditional normality under temporal aggregation, are explored. ARCH models are then estimated by maximum likelihood and used to infer the pattern of time-varying volatility; differences in parameter estimates due to use of the fully-efficient estimator are also noted. Next, we provide a systematic examination of the entire NYSE market.

PD October 1988. **TI** Ex Ante Turning Point Forecasting with the Composite Leading Index. **AU** Diebold, Francis X.; Rudebusch, Glenn D. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 40; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 37. **PR** No Charge. **JE** 131, 132, 133, 225. **KW** Leading Indicators. Business Cycle. Forecasting. Bayesian Economics.

AB In earlier research we have used a recursive form of Bayes' theorem to map revised movements of the composite index of leading indicators (CLI) into ex post probabilistic business-cycle turning point predictions, which are then evaluated using formal probability assessment scoring rules. In the present paper, we extend our analysis to the case of ultimate interest: evaluation of completely ex ante forecasts. This involves rolling through the sample, using the original and partially revised data as they become available, and enables us to examine the predictive accuracy of real-time turning-point probability forecasts, conditional upon the particular model adopted. The performance of these forecasts is compared to that of forecasts generated with the same technique but with ex post revised CLI data, as well as to that of a number of alternative rules commonly used to interpret movements of the CLI. We find substantial deterioration in forecasting performance with the real-time CLI data relative to the final revised data.

Diewert, W. E.

TI Productivity Growth and Changes in the Terms of Trade in Japan and the U.S. **AU** Morrison, Catherine; Diewert, W. E.

Donaldson, John D.

TI On Some Computational Aspects of Equilibrium Business Cycle Theory. **AU** Danthine, Jean Pierre; Donaldson, John D.; Mehra, Rajnish.

Dornbusch, Rudiger

PD November 1988. **TI** Real Exchange Rates and Macroeconomics: A Selective Survey. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 2775; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 431, 112, 411. **KW** Developing Countries. Exchange Rates. Capital Mobility. Depreciation.

AB This paper discusses exchange rate issues in advanced and in developing countries. For the determination of exchange rates among industrialized countries the key question is the following: What is the right framework -- the monetary approach, the equilibrium approach, the new classical approach or the macroeconomic model in the tradition of Mundell-Fleming. To shed light on that question two empirical problems are considered: What is known about the behavior of real exchange rates and how well do alternative models explain the relation among interest rates, expected depreciation and actual depreciation. The second half of the paper discusses real exchange rates in developing countries. This strand of literature has become important in the context of adjustment programs. We focus on the relation between real exchange rates and the profitability of capital. The model highlights the sharp discrepancy between the mobility of capital (even physical capital, in the long run) and the immobility of labor.

PD December 1988. **TI** Notes on Credibility and Stabilization. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 2790; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 134, 133, 121, 113, 111. **KW** Credibility. Stabilization. Hyperinflation.

AB Do existing theories of stabilization help understand the credibility issues involved in such programs. The experience with stabilization in a hyperinflation setting in Israel and Latin America makes it worthwhile to ask how much existing theories help understand the success and failure of these experiments. The first section deals with stabilization as a one-shot problem. This approach is used to ask what "credibility" might mean in a world where it is inconceivable that a program will succeed with probability 1. A model is spelled out where the equilibrium program has an ex ante probability of success. The model draws attention to the factors which raise or lower the probability of success of a stabilization program. The next section deals with the problem of waiting which is familiar from the option literature and recent international applications.

PD December 1988. **TI** Credibility, Debt and Unemployment: Ireland's Failed Stabilization. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 2785; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 131, 133, 122, 113, 111. **KW** Stabilization Policy. Inflation. Ireland. European Monetary System. Classical Economics.

AB Can the credibility of a stabilization plan affect the output costs of disinflation. The new classical economics has asserted this possibility, but little evidence has been brought forward. This paper analyzes the stabilization program of Ireland in the 1980s against the background of the new classical economics. The main questions are two: Did EMS membership yield a special credibility bonus. And is the stabilization program sustainable. The answer to both questions is negative.

Dreze, Jean

PD October 1988. **TI** Policy Reform, Shadow Prices, and Market Prices. **AU** Dreze, Jean; Stern, Nicholas. **AA** London School of Economics. **SR** International Monetary Fund Working Paper: WP/88/91; International Monetary Fund, Washington, DC 20431. **PG** 50. **PR** No Charge. **JE** 113, 027, 321, 614, 024. **KW** Tax Reform. Government Policy. Shadow Prices.

AB How should possible policy reforms and projects be assessed when prices give misleading signals. Revenues and costs at market prices then give distorted measures of social gains and losses and our appraisal should use social opportunity costs, or correctly defined, shadow prices. We show how shadow prices may be integrated into an analysis of tax and price reform, demonstrate the critical dependence of these prices on government policy, and analyze their relations with market prices. A conceptual framework for applied analysis is provided plus a detailed theoretical account of policy in a model with some fixed prices, rationing, and taxation.

Dubin, Jeffrey

PD December 1987. **TI** Risk and Reactor Safety Systems Adoption. **AU** Dubin, Jeffrey; Rothwell, Geoffrey. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 113; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 23. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 613, 723, 722, 616. **KW** Nuclear Reactors. Energy. Safety. Regulation.

AB How do firms react to the risk of accidents that disable their industrial plant. We examine this question by modeling the electric utility's present-value maximizing decision to install reactor safety systems. The optimal adoption time is a function of the probability of a serious accident, the cost of the safety system, potential damages, and insurance premiums. We apply an econometric version of our model to the empirical evidence of implementing a computer-graphics warning system for nuclear reactors. We find that (1) owners of plants with higher equipment failures and lower bond ratings were quicker to adopt the safety system; (2) owners of larger plants were slower to adopt; and (3) the size of the population surrounding the plant, the state regulatory climate in which the reactor is operating, and the value of the initial plant investment had no influence on the speed of adoption.

Duca, John V.

PD August 1988. **TI** Loan Commitments and Optimal Monetary Policy. **AU** Duca, John V.; VanHoose, David D. **AA** Duca: Board of Governors of the Federal Reserve System. VanHoose: Indiana University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 44; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 29. **PR** No Charge. **JE** 315, 312, 311, 023. **KW** Loan Commitments. Monetary Policy. Credit. Loan Contracts.

AB This paper analyzes the implications of increased reliance on floating rate loan commitments by firms for an optimal interest-rate-conditioned monetary policy. The analysis uses a stylized Poole (1970)-type IS-LM structure that parallels that of Bernanke and Blinder (1988) by integrating explicitly the interaction between credit and goods market clearing. By endogenizing the choice between conventional loans and floating-rate commitment contracts, the model can analyze the interaction between central bank monetary policy decisions and choices by firms between fixed-rate term loan and floating-rate loan commitment contracts. A key implication of the paper is that, when this joint decision problem is taken into account, the separation between the monetary and goods sectors assumed in the standard IS-LM paradigm breaks down.

PD November 1988. **TI** Wage Indexation in a Multisector Economy. **AU** Duca, John V.; VanHoose, David. **AA** Duca: Federal Reserve System. VanHoose: Indiana University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 47; Special Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 22. **PR** No Charge. **JE** 824, 821, 832, 227. **KW** Wage Contracts. Labor Supply. Consumer Price Index. Wage Indexation.

AB This paper analyzes optimal indexation schemes in an economy composed of sectors characterized by differing forms of wage behavior. In one sector, there are wage contracts; in the other sector, wages are determined by Walrasian market-clearing. The sectors are linked by the fact that labor supply in each sector depends upon the real wage expressed in terms of a consumer price index based upon the market-clearing output prices of each sector. However, sectoral labor demand depends upon the real wage in terms of the sector-specific price. It is shown that, in such an economy, full indexation to the aggregate price level in response to aggregate demand-side shocks is not optimal, even in the absence of supply-side disturbances, and that the optimal degree of wage indexation to sectoral versus aggregate price innovations depends upon the relative magnitudes of the real wage elasticities of labor demand and labor supply and upon the relative importance of the contracting sector in the macroeconomy.

Durlauf, Steven N.

PD December 1987. **TI** Compositional Effects of Government Spending in a Small Open Production Economy. **AU** Durlauf, Steven; Staiger, Robert. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 116; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 17. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 111, 411, 431, 322. **KW** Exchange Rates. Open Economy. Fiscal Policy. Government Spending.

AB This paper explores the impact of compositional shifts in government spending on the real exchange rate, the real interest rate, and the current account balance of a small two sector open economy. The effects of such shifts in government spending are examined by focusing on their implications for the allocation of productive resources between the traded and the nontraded sector. With capital imperfectly mobile across countries, we show that a shift in government spending toward the nontraded good will lead to an appreciation of the real exchange rate and, if the nontraded good is relatively labor (capital) intensive, to a fall (rise) in the domestic real rate of interest and to an accompanying current account surplus (deficit) during the transition to the new equilibrium. As such, the composition of government spending matters for the effects of fiscal policy on key macroeconomic variables of the model.

PD December 1987. **TI** Compositional Effects of Government Spending in a Two-Country Two-Sector Production Model. **AU** Durlauf, Steven N.; Staiger, Robert W. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 120; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 22. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 411, 111, 322, 321. **KW** Government Spending. Exports. Open Economy. Fiscal Policy.

AB This paper explores the impact of changes in the composition of government spending on the level of relative prices, interest rates and the current account in a two country, two period Heckscher-Ohlin model. We show that shifting the composition of government spending affects macroeconomic variables according to the relative factor intensities of tradeable and non-tradeable goods. Adjustments of composition towards non-tradeables will raise (lower) world interest rates if non-tradeables are capital (labor) intensive. The announcement of a future shift towards non-tradeables will induce a current account deficit (surplus) if future interest rates are expected to increase (decrease). The introduction of production thus places restrictions on the co-movements of fiscal policy and macroeconomic variables beyond those generated by preferences.

Dutta, Jayasri

PD July 1988. **TI** Asset Markets and Equilibrium Processes. **AU** Dutta, Jayasri; Polemarchakis, Herakles. **AA** Columbia University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-203; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 53. **PR** No Charge. **JE** 021, 313. **KW** Asset Markets. Incomplete Markets. Equilibrium Processes. White Noise. Competitive Allocation. Serial Correlation.

AB The failure of the asset market to be complete causes serial dependence in output and prices, which is suboptimal. We consider an economy with white noise shocks. When the asset market is complete, an optimal, competitive allocation inherits this strong stationarity. When the asset market is only sequentially complete, prices and output necessarily display serial dependence at equilibrium. The further incompleteness of a monetary economy explains comovements in real and nominal variables.

Dymski, Gary

PD October 1988. **TI** Uncertainty, Illiquidity, and Bank Innovation. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8813; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 35 pages. **PR** No Charge. **JE** 311, 312, 314. **KW** Illiquidity. Banking. Financial Innovation. Uncertainty. Monetary Policy.

AB This paper proposes a new explanation of bank innovation: innovations which banks undertake because their net income using existing instruments falls below their owners' hurdle rate -- that is, innovations which are responses to "adversity". The model of adversity innovation which is developed extends the notion of "illiquidity" as a shortage of reserves. It is then shown that uncertainty and systemic illiquidity are sufficient to trigger bank innovation under adversity. A surprising aspect of this result is that it is obtained despite an assumption that loans are return-certain. This paper then reviews empirical evidence that banking-system illiquidity is associated with owner pressure and borrowing premia, and that some bank innovations have been initiated in periods of systemic illiquidity and adversity.

Ebrill, Liam P.

PD September 1988. **TI** Money Demand in the United States. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/86; International Monetary Fund, Washington, DC 20431. **PG** 26. **PR** No Charge. **JE** 311. **KW** Monetary Policy. Demand Functions. Target Variable.

AB This paper considers the demand for various monetary aggregates with a view to assessing their potential roles as intermediate variables for monetary policy. Illustrative estimates using a generalized autoregressive distributed lag model are presented. For M1, the results support an "error correction" model. However, the demand function for M1 may still be subject to shifts due to the continuing process of financial reform and innovation. The demand function for M1A resulting from the particular empirical strategy used in this paper is not well behaved. The estimated equation for M2 is well behaved and robust, though the use of M2 as an intermediate target variable is questionable due to an inability accurately to control it.

Eden, Benjamin

PD October 1988. **TI** Asymmetric Information and the Excess Volatility of Stock Prices. **AU** Eden, Benjamin; Jovanovic, Boyan. **AA** Eden: University of Iowa and Technion-Israel Institute of Technology. Jovanovic: New York University. **SR** New York University Economic Research Reports: 88-31; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 18. **PR** No Charge. **JE** 313, 311, 022, 026. **KW** Volatility. Private Information. Stock Market. Stock Prices.

AB This paper advances the hypothesis that some of the volatility of stock prices in excess of fundamentals is caused by fluctuations in the amount of public information over time. The model assumes that dividends and consumption are constant in the aggregate but that there are good firms and bad firms whose identity may be unknown to the public, as in Akerlof's "lemons" problem. The paper then shows that the collective valuation of the constant dividend stream will depend on the amount of information in the economy: the better the information, the better the allocation of firms' shares over savers.

Edwards, Sebastian

PD August 1988. **TI** Temporary Import Tariffs, the Real Exchange Rate and the Current Account. **AA** University of California, Los Angeles and National Bureau of Economic Research. **SR** International Monetary Fund Working Paper: WP/88/80; International Monetary Fund, Washington, DC 20431. **PG** 19. **PR** No Charge. **JE** 411, 431, 422, 023. **KW** Intertemporal Model. General Equilibrium. Open Economy.

AB In this paper a general equilibrium intertemporal model with optimizing consumers and producers is developed to analyze how the imposition of a temporary import tariff affects the path of real exchange rates and the current account. The model is completely real, and considers a small open economy that produces and consumes three goods each period. It is shown that, without imposing rigidities or adjustment costs, interesting paths for the equilibrium real exchange rate can be generated. In particular "equilibrium overshooting" can be observed. Precise conditions under which a temporary import tariff will worsen the current account in period 1 are derived. Several ways in which the model can be extended are discussed.

Eichengreen, Barry

TI Savings Promotion, Investment Promotion, and International Competitiveness. **AU** Goulder, Lawrence; Eichengreen, Barry.

Elbadawi, Ibrahim

PD January 1989. **TI** Terms of Trade, Commercial Policy, and the Black Market for Foreign Exchange: An Empirical Model of Real Exchange Rate Determination. **AA** Economic Growth Center. **SR** Yale Economic Growth Center Discussion Paper: 570. **PG** 50. **PR** $2.00 + postage. **JE** 431, 121, 411, 023. **KW** Exchange Rate. Depreciation. Black Market. Excess Demand.

AB A model of real exchange rate (RER) determination is presented. The model permits long run equilibrium movements in RER to be distinguished from its short run disequilibrium dynamics. An important aspect of the model is that it explicitly considers the black market premium as one of the fundamental determinants of RER. Especially in economies plagued with persistent excess aggregate demand, and rapidly depreciating domestic money under a regime characterized with currency inconvertibility and highly regulated current account transactions, the black market is usually a persistent and a growing part of the economy. The model is then applied to the case of the Sudan, a less developed country which approximates the economic environment described above.

Epstein, Larry G.

TI Generalized and Implicit Gini Indices. **AU** Chew, Soo Hong; Epstein, Larry.

TI A Unifying Approach to Axiomatic Non-Expected Utility Theories. **AU** Chew, Soo Hong; Epstein, Larry G.

Estrin, Saul

PD August 1988. **TI** Can Employee Owned Firms Survive. **AU** Estrin, Saul; Jones, Derek C. **AA** Estrin: Centre for Labour Economics, London School of Economics. Jones: Hamilton College. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 316; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 26. **PR** No Charge. **JE** 511, 514, 611, 025, 027. **KW** Private Ownership. Industrial Organization.

AB In this paper, a large panel of French employee owned firms is used to test the hypothesis that such organizations have inherent problems of survival. The influential models of Miyazaki (1984) and Ben-Ner (1984) are reviewed and developed for empirical testing. Wage and membership equations are estimated jointly, but the predicted inverse association between the two is not found. Indeed wages are found to be positively associated with membership levels. This suggests that degeneration back to private ownership will not be a problem for employee owned firms.

PD August 1988. **TI** Estimates of Static and Dynamic Models of Wage Determination in Labor-Managed Firms. **AU** Estrin, Saul; Svejnar, Jan. **AA** Estrin: Centre for Labour Economics, London School of Economics. Svejnar: University of Pittsburgh. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 318; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 30. **PR** No Charge. **JE** 824, 121, 112. **KW** Wage Determination. Private Ownership. Dynamic Model. Capital Stock. Earnings.

AB In this paper, a general log linear approximation to a dynamic earnings equation under labor-management, are estimated on Yugoslav data. Attention is focused towards the issue of capital rationing, with an attempt being made to isolate the dimensions of capital rentals as a cause of wage dispersion. We go on to present a formal dynamic model of wage determination under labor-management. The findings using the two approaches are consistent, and suggest that in practice the impact of capital rationing on earnings was small.

Evans, George W.

PD December 1987. **TI** Sectoral Imbalance and Unemployment in the United Kingdom. **AA** London School of Economics. **SR** Stanford Center for Economic Policy Research Discussion Paper: 129; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 23. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 824, 131, 133. **KW** Labor Demand. Output Elasticities. Unemployment. Vacancies.

AB Quarterly measures of United Kingdom labor market sectoral imbalance are computed using industrial and regional data, and a systematic attempt is made to correct for cyclical influences by using estimated output elasticities of sectoral labor demand. The corrected measures are used to examine the extent to which changes in sectoral imbalance affect the position of the U/V (unemployment/vacancy rate) curve. The substantial increase in industrial imbalance beginning in 1980 is estimated to have accounted for an increase in the unemployment rate, measured at U = V, of about 2.7 percentage points.

PD November 1989. **TI** On the Robustness of Bubbles in Linear RE Models. **AU** Evans, George W.; Honkapohja, Seppo. **AA** Evans: London School of Economics and Political Science. Honkapohja: Turku School of Economics and Business Administration, Finland. **SR** Stanford Institute for Mathematical Studies in the Social Sciences (Economic Series) Technical Report: 539; IMSS, Encina Hall, Fourth Floor, Stanford University, Stanford, CA 94305. **PG** 21. **PR** $4.00. **JE** 213, 023, 311. **KW** Bubbles. Rational Expectations. Learning. Stability. Robustness. Linear Model.

AB We use expectational stability (E-stability) to analyze the robustness of the different solutions to a linear rational expectations model in which the endogenous variable depends on expectations of its current and future values, formed in the past, and also on its own lagged value. It is shown that the continuum of bubble solutions cannot be strongly E-stable. This result is obtained using the center manifold theory of nonhyperbolic equilibrium points. In contrast, for certain parameter values, a particular solution which would normally be identified as a bubble solution can be strongly E-stable. The results are applied to two macroeconomic models.

Evans, William

TI Utility Functions that are Dependent on One's Health Status: Estimates and Economic Implications. **AU** Viscusi, W. Kip; Evans, William.

PD June 1988. **TI** Risk Compensation and Safety Belt Use Laws. **AU** Evans, William; Graham, John D. **AA** Evans: University of Maryland. Graham: Harvard School of Public Health. **SR** University of Maryland Department of Economics Working Paper Series: 88-35; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 25. **PR** No Charge. **JE** 916, 933. **KW** Risk. Environment. Regulation. Technology. Risk Compensation.

AB The technological approach to risk regulation seeks to lessen the incidence of mortality and morbidity by modifying environmental conditions instead of changing human behavior. Insofar as risk-taking behavior is purposive, social scientists have predicted that technological progress may be negated by various forms of "risk compensation". The validity of this hypothesis is tested in the transportation sector with preliminary data from thirty-one states in the United States that have enacted mandatory safety belt use laws. A fixed effects model of traffic fatality counts is estimated using pooled data from the 50 states during the 1975-1986 period. Results suggest that such laws have reduced mortality among occupants of cars to a degree that is compatible with the predictions of technologists. There is weak evidence of slightly increased mortality among nonoccupants, a pattern predicted by risk compensation theorists.

PD August 1988. **TI** An Estimate of the Lifesaving Benefit of Child Restraint Use Legislation. **AU** Evans, William; Graham, John. **AA** Evans: University of Maryland. Graham: Harvard School of Public Health. **SR** University of Maryland Department of Economics Working Paper Series: 88-47; Department of Economics, University of Maryland College Park, MD 20742. **PG** 31. **PR** No Charge. **JE** 933, 916, 921. **KW** Poisson. Auto Safety. Car Seats. Child Restraint Legislation.

AB This paper presents the first econometric estimate of the lifesaving benefit of automobile child restraint use legislation. In contrast to previous econometric analyses of safety regulations, a Poisson specification is employed to account for the rarity of childhood fatalities. Results of the modeling suggest that legislation reduces childhood fatalities by 41 per cent among infants, and 27 per cent among toddlers. A simple simulation indicates that such legislation is currently saving the lives of about 125 children per year in the United States.

Evenson, Robert E.

PD November 1988. **TI** Human Capital and Agricultural Productivity Change. **AA** Economic Growth Center. **SR** Yale Economic Growth Center Discussion Paper: 566. **PG** 25. **PR** $2.00 + postage. **JE** 712, 813, 621, 112, 713. **KW** Agriculture. Farmers. Technology. Productivity.

AB Human capital held by farmers and by extension agents and researchers specializing in the development and diffusion of improved technology is vital to the achievement of productivity change in agriculture. This paper reviews studies that have sought to associate human capital and agricultural productivity growth. It emphasizes the productivity contributions of research and extension specialists. More than 50 studies covering many developing countries are reviewed. With few exceptions they measure large productivity impacts and compute relatively high rates of return to public sector investments in research and extension programs.

TI The Economic Impact of Agricultural Extension: A Review. **AU** Feder, Gershon; Birkhaeuser, Dean; Evenson, Robert.

Farrell, Joseph

PD January 1988. **TI** Horizontal Mergers: An Equilibrium Analysis. **AU** Farrell, Joseph; Shapiro, Carl. **AA** Farrell: University of California, Berkeley and Hoover Institution. Shapiro: Princeton University. **SR** Stanford Hoover Institute Working Paper in Economics: E-89-3; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 38. **PR** No Charge. **JE** 611, 612, 022. **KW** Mergers. Oligopoly. Antitrust.

AB We analyze horizontal mergers in Cournot oligopoly. We find general conditions under which such mergers raise price, and show that any merger not creating synergies will cause price to rise. We develop an informationally-efficient procedure for analyzing the effect of a merger on rivals and consumers which we use to provide sufficient conditions for profitable mergers to raise welfare. We show that traditional merger analysis can be badly misleading in its use of the Herfindahl Index. Our analysis stresses the output responses of large firms that do not participate in the merger.

PD June 1988. **TI** Horizontal Mergers: An Equilibrium Analysis. **AU** Farrell, Joseph; Shapiro, Carl. **AA** Farrell: University of California, Berkeley. Shapiro: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 17; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 28. **PR** No Charge. **JE** 611, 514, 511, 022. **KW** Mergers. Oligopoly. Cournot Equilibrium. Incentives. Market Price.

AB See addtional entry under this author and title.

PD November 1988. **TI** Optimal Contracts with Lock-in. **AU** Farrell, Joseph; Shapiro, Carl. **AA** Farrell: University of California Berkeley and Hoover Institution. Shapiro: Princeton University. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-45; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 52. **PR** No Charge. **JE** 024,

026, 022. **KW** Switching Costs. Long-term Relationships. Contracts. Opportunism. Contract Theory. Welfare Theory.
AB We analyze incomplete long-term bilateral contracts when buyers incur relationship-specific set-up costs and sellers choose some aspect of product or service quality that is not verifiable to third parties. If set-up costs are observable, the first-best outcome can be achieved even though contracts cannot enforceably specify quality; this does not even require long-term contracts. If set-up costs are unobservable, however, then long-term price contracts can strictly outperform short-term contracts, although they are not constrained Pareto efficient. Equilibrium may involve either inefficiently low quality with no buyer switching, or efficient quality with inefficient switching. A policy of taxing switching, or the availability of "budget-breaking" third parties, can improve welfare.

TI Decentralization, Duplication and Delay. **AU** Bolton, Patrick; Farrell, Joseph.

Feder, Gershon

PD January 1989. **TI** The Economic Impact of Agricultural Extension: A Review. **AU** Feder, Gershon; Birkhaeuser, Dean; Evenson, Robert. **AA** Economic Growth Center. **SR** Yale Economic Growth Center Discussion Paper: 567. **PG** 62. **PR** $2.00 + Postage. **JE** 712, 713, 813, 711, 112. **KW** Public Investment. Agriculture. Farmers. Technology.
AB This paper reviews studies that have attempted to measure the impact on farmer knowledge, technology adoption, productivity and profits of public sector investments in agricultural extension programs. Forty-seven studies undertaken in 17 countries plus one international study covering 24 developing countries are reviewed. A number of these studies appeared to be subject to substantial bias because extension measures were endogenous to farmer behavior, i.e., extension contacts were chosen by farmers. Most studies measured positive impacts of extension. Those estimates least subject to bias, i.e., where extension variables were measured as services supplied to a region, were most consistent in showing impact. Only ten studies report estimated returns to investment in extension. These did report relatively high rates of return and demonstrated that agricultural extension in a number of countries has been a high pay-off public investment.

Feenberg, Daniel R.

PD June 1988. **TI** Testing the Rationality of State Revenue Forecasts. **AU** Feenberg, Daniel R.; Gentry, William; Gilroy, David; Rosen, Harvey S. **AA** Feenberg: National Bureau of Economic Research. Gentry, Rosen, Gilroy: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 16; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 33. **PR** No Charge. **JE** 324, 132. **KW** State Finance. Government Revenues. Forecasts.
AB In recent months, the governors of several states have suffered major political embarrassments because actual revenues fell substantially short of the predictions in their respective budgets. Such episodes focus attention on the question of whether states do a "good" job of forecasting revenues. In modern economics, forecasts are evaluated on the basis of whether or not they are "rational" -- do the forecasts optimally incorporate all information that is available at the time they are made. This paper develops a method for testing the rationality of state revenue forecasts, and applies it to the analysis of data from New Jersey, Massachusetts, and Maryland. One of our main findings is that in all three states, the forecasts of own revenues are systematically biased downward.

PD July 1988. **TI** A Note on Revenue Forecasting During the Dukakis Administration. **AU** Feenberg, Daniel R.; Rosen, Harvey S. **AA** Feenberg: National Bureau of Economic Research. Rosen: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 23; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 15. **PR** No Charge. **JE** 324, 132. **KW** State Finances. Forecasts. Government Revenues. Massachusetts.
AB Critics of Governor Michael Dukakis have suggested that this year's $400 million overestimate of tax revenues in Massachusetts casts doubt on his putative managerial skills. In this paper, we carefully examine the entire Dukakis forecasting record. We find that the 1988 experience was "unusual" in the sense that on average, revenue forecasts produced by his administration have been too low rather than too high. In addition, we find that there is no significant difference between the quality of the Dukakis forecasts and those of his predecessors in Massachusetts. Hence, those who seek to discover anything extraordinarily positive or negative about Dukakis' managerial capabilities should shift their attention to skills other than revenue forecasting.

Fenerty, Joseph P.

PD October 1988. **TI** Costs and Benefits of Prenatal Screening for Cystic Fibrosis. **AU** Fenerty, Joseph P.; Garber, Alan M. **AA** Fenerty: Stanford University. Garber: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2749; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 913. **KW** Genetic Diseases. Prenatal Screening. Medical Costs.
AB Newly-developed genetic tests based on restriction fragment length polymorphisms (RFLPs) promise to facilitate the early detection of genetic diseases. Several such tests are now available for the prenatal detection of cystic fibrosis (CF), a common and costly disease. The tests for CF are currently limited to prenatal diagnosis in siblings of a victim of CF. Direct gene probe tests, which have yet to be developed for CF, would be applicable even in families that have not already borne a child with the disease. We examine the costs and benefits of prenatal testing for cystic fibrosis using existing RFLP-based tests and using a hypothetical direct gene probe test. We find that even an expensive RFLP-based testing program produces substantial net benefits, because it is applied in pregnancies in which the risk of CF is 25 per cent. If a direct gene probe test is applied in all pregnancies, it will need to be much less expensive to generate net benefits, and it will lead to the abortion of many normal fetuses unless it is highly specific.

Fershtman, C.

PD January 1989. **TI** Price Cycles and Booms: Dynamic Search Equilibrium. **AU** Fershtman, C.; Fishman, A. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 1-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 32. **PR** No Charge. **JE** 131, 133, 023, 227, 022. **KW** Prices. Search Theory. Dynamic Models. Dynamic Search. Business Cycles.

AB Search Theory has been extensively and successfully applied to explain the persistence of price dispersion. This paper presents an explicitly dynamic search model which is able to account for cyclical patterns of prices and demand over time. These cyclical features of the model are the consequence of the dynamic strategic interaction between buyers and firms and do not require the presence of extraneous factors such as shocks or heterogeneity of agents in order to obtain. The model builds on earlier work by Burdett and Judd (1983) and may be interpreted as a dynamic extension of their model.

Fischel, William

PD September 1987. **TI** A Constitutional Choice Model of Compensation for Takings. **AU** Fischel, William; Shapiro, Perry. **AA** Fischel: Dartmouth College. Shapiro: University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 275A; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 26. **PR** No Charge. **JE** 025, 024, 021. **KW** Government. Compensation. Optimality. Social Choice.

AB Risk-neutral landowners form a constitutional convention to select a rule for compensation for government takings. They anticipate the government's behavior after the convention, but a "veil of ignorance" prevents them from knowing their personal fortunes until after the convention is over. The convention's decision is found to depend on the expected nature of government. Zero compensation would be chosen if the framers expected the government to behave optimally, or if they believed the government's nonoptimal behavior would not be deterred by compensation. A convention that anticipates a majoritarian government, however, will always call for some positive level of compensation.

Fischer, Stanley

PD January 1989. **TI** Should Nations Learn to Live with Inflation. **AU** Fischer, Stanley; Summers, Lawrence. **AA** Fischer: The World Bank. Summers: Harvard University. **SR** National Bureau of Economic Research Working Paper: 2815; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 134, 133, 024. **KW** Inflation. Government Policy. Stabilization Policy.

AB It is often argued that the most important costs of inflation can be substantially mitigated by indexing reforms. Yet governments in moderate inflation countries have generally been very reluctant to promote institutional changes that would reduce the costs of inflation. Capital income continues to be taxed on a nominal basis, indexed bonds are a rarity, typical mortgage contracts keep nominal rather than real payments constant, and interest is not paid on required reserves. This paper examines the welfare consequences of inflation mitigation measures in the context of dynamic consistency theories of the determination of the inflation rate. Our general conclusion is that recognizing the effects of inflation mitigation measures on the choice of the inflation rate substantially undercuts the welfare case in their favor.

Fishelson, Gideon

PD October 1988. **TI** Imperfect Competition under Uncertainty. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 31-88; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, Tel-Aviv, ISRAEL. **PG** 20. **PR** No Charge. **JE** 022, 026. **KW** Imperfect Competition. Uncertainty. Duopoly. Risk Aversion. Price Leadership.

AB The behavior of firms in the Cournot-Nash model is examined under uncertainty in market demand and in their production. The emerging result is that if one of the firms is strongly more risk averse than the other its output will increase but total output declines (even when the other is risk neutral). In the Stackelberg model however if the follower is risk neutral he might compensate for the decline of output by the leader.

PD October 1988. **TI** Demand for Inputs under Uncertainty: A Methodological Graphical Note. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 33-88; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, Tel-Aviv, ISRAEL. **PG** 17. **PR** No Charge. **JE** 022, 026. **KW** Uncertainty. Inputs. Competitive Firm. Monopoly. Monopsony. Input Demand.

AB The study presents, in graphical form, the effects of uncertainty on the demand for factors of production for three market structures; a competitive firm, a monopoly and a monopsony. The presentation is based upon corresponding to each structure of the Iso value curves. It turns out that ambiguities regarding the behavior of the Iso curves are frequently present and one has to resort to strong assumptions to reach definiteness. However, we do suggest the use of graphs for input demand analysis.

Fishman, Arthur

TI Price Cycles and Booms: Dynamic Search Equilibrium. **AU** Fershtman, C.; Fishman, A.

PD February 1989. **TI** Entry Deterrence in a Finitely Lived Industry. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 5-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 19. **PR** No Charge. **JE** 611, 022, 026. **KW** Market Structure. Exit. Entry Deterrence. Declining Industry.

AB The Ghemawat and Nalebuff (1985) exit model is extended to include an entry stage. Demand is high at the time of entry but is expected to eventually decline. It is shown that equilibrium entry decisions may be critically affected by the prospect of future decline even when the latter is scheduled to occur in the arbitrarily distant future or is expected to be of arbitrarily short duration. In all cases a unique perfect equilibrium for the entry game exists. This equilibrium exhibits counterintuitive features. For example, an incumbent's, and sometimes even the industry's, output may be larger if the incumbent is a monopoly than if faced with a potential entrant. Also, in some cases it is the entrant who enjoys a strategic advantage over the incumbent.

Flam, Harry

PD January 1989. **TI** Adverse Selection in Credit Markets and Infant Industry Protection. **AU** Flam, Harry; Staiger, Robert W. **AA** Flam: Institute for International Economic Studies. Staiger: Stanford University and Hoover

Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-89-4; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 42. **PR** No Charge. **JE** 411, 422, 323, 315. **KW** Infant Industries. Protectionism. Credit Market. Tariffs.

AB This paper considers the role for infant industry protection when credit markets suffer from adverse risk selection. We show that asymmetric information about firm-specific risk leads to under-funding of the infant industry in a competitive credit market. A small amount of infant industry protection is shown to be welfare improving, and the optimal infant industry tariff is derived. Finally, an alternative government policy of production subsidies is considered under the assumption that the government shares private knowledge with infant industry firms. We argue that a tariff may dominate production subsidies as an entry promoting device in this context.

Flavin, Marjorie

PD December 1988. **TI** The Excess Smoothness of Consumption: Indentification and Interpretation. **AA** University of Virginia. **SR** National Bureau of Economic Research Working Paper: 2807; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 921, 023. **KW** Consumption. Information. Income. Forecasts. Smoothness.

AB The paper investigates the implications of the omitted information problem -- that is, the econometric problem which arises because an econometrician cannot explicitly include the complete set of variables potentially used by agents -- in the context of the "excess smoothness" phenomenon posed by Deaton '1987(. The paper shows that an econometrician who fails to take into account the effects of omitted information will incorrectly conclude that an empirical finding of excess smoothness of consumption implies that the income process is nonstationary. By contrast, with a more thorough understanding of the omitted information problem, the finding of excess smoothness of consumption is easily explained with two assumptions: a) the consumption data is generated by the excess sensitivity alternative hypothesis, in which consumption is a weighted average of current income and permanent income, and b) agents are forecasting on the basis of a larger information set than the econometrician.

Flinn, Christopher J.

PD September 1988. **TI** The Effect of Employee Heterogeneity on Firm Profits and Contract Compliance. **AA** New York University. **SR** New York University Economic Research Reports: 88-27; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 37. **PR** No Charge. **JE** 821, 825, 813. **KW** Asymmetric Information. Contracts. Dismissals. Monitoring. Productivity. Heterogeneous Workers.

AB This paper develops a model of employer and employee behavior for an environment in which employers can only observe employee productivity by expending resources on monitoring, and in which employees differ in an unobservable (to the employer) ability to perform productive tasks. We show that employers are made unambiguously worse off when facing a distribution of employee productivity with small amounts of dispersion rather than a homogenous population. However, for large amounts of dispersion in employee productive ability, employer welfare may be greater than in the homogeneous employee population case.

Flood, Robert

PD October 1988. **TI** Monetary Policy Strategies. **AU** Flood, Robert; Isard, Peter. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/88; International Monetary Fund, Washington, DC 20431. **PG** 25. **PR** No Charge. **JE** 311, 023. **KW** Monetary Policy. Decision Rules. Macroeconomic Model.

AB The paper considers the merits of rules and discretion for monetary policy when the structure of the macroeconomic model and the probability distributions of disturbances are not well defined. It is argued that when it is costly to delay policy reactions to seldom-experienced shocks until formal algorithmic learning has been accomplished, and when time consistency problems are significant, a mixed strategy that combines a simple verifiable rule with discretion is attractive. The paper also discusses mechanisms for mitigating credibility problems and emphasizes that arguments against various types of simple rules lose their force under a mixed strategy.

PD November 1988. **TI** Monetary Policy Strategies. **AU** Flood, Robert; Isard, Peter. **AA** International Monetary Fund. **SR** National Bureau of Economic Research Working Paper: 2770; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 311, 113, 022, 023. **KW** Monetary Policy. Credibility. Decision Rule.

AB See addtional entry under this author and title.

PD December 1988. **TI** Asset Prices and Time-Varying Risk. **AA** International Monetary Fund. **SR** National Bureau of Economic Research Working Paper: 2780; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 311, 321. **KW** Asset Markets. Asset Pricing. Fiscal Reform. Fiscal Policy. Stock Market.

AB Observers have often characterized asset markets as being subject to periods of tranquility and periods of turbulence. Until recently, however, researchers were unable to produce closed-form asset pricing formulas in a model environment of time-varying risk. Some work by Abel provided us with the insights needed to produce such formulas. This paper gives an exposition of how to develop the formulas in an environment where the formulas may be obtained using a simple extension of standard tools. While the paper is intended mainly as an exposition of new work, it also contains a report on the asset market effect of fiscal reform. It is found that entering a period of weak coordination between government spending and taxing (tax rate) policy is good for stock prices.

Frank, Andras

PD July 1988. **TI** An Application of Submodular Flows. **AU** Frank, Andras; Tardos, Eva. **AA** Frank: University of Budapest. Tardos: Massachusetts Institute of Technology. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88514-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 19. **PR** No Charge. **JE** 213. **KW** Supermodular Functions. Directed Cuts. Matroid Intersection Theorem.

AB Extending theorems of Rado and Lovasz, we introduce a new framework for problems concerning supermodular functions and graphs. Among the applications is an optimization problem for finding a minimum cost subgraph H of a diagraph G = (V,E) such that H contains k disjoint paths from a fixed node of G to any other nodes. Another consequence is a characterization for graphs having a branching that meets all directed cuts. A theorem of Vidyasankar on optimal covering by arborescences and a matroid intersection theorem of Groflin and Hoffman are also shown to be special cases.

Frank, Richard G.

PD October 1988. **TI** Altruism, Rivalry and Crowding-Out in the Nonprofit Firm's Supply of Charity Services: The Case of Hospitals. **AU** Frank, Richard G.; Salkever, David S. **AA** Johns Hopkins University. **SR** National Bureau of Economic Research Working Paper: 2753; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 636. **KW** Charity. Nonprofit Industries. Hospitals.

AB This paper extends previous research on individuals' supply of charitable donations to the behavior of nonprofit firms. Specifically, we study provision of charity care by private, nonprofit hospitals. We demonstrate that in the absence of large positive income effects on charity care supply, convex preferences for the nonprofit hospital imply crowding out by other private or government hospitals. Extending our model to include patient heterogeneity and impure altruism (rivalry) provides a possible explanation for the previously reported empirical result that both crowding out and income effects on indigent care supply are often weak or insignificant. Empirical analysis of data for hospitals in Maryland provides strong evidence of rivalry on the supply of outpatient plus inpatient charity care, but not when the analysis is confined to inpatient care.

Freeman, Richard

PD December 1988. **TI** Employer Behavior in the Face of Union Organizing Drives. **AU** Freeman, Richard; Kleiner, Morris M. **AA** Freeman: National Bureau of Economic Research. Kleiner: University of Minnesota. **SR** National Bureau of Economic Research Working Paper: 2805; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 831, 833, 511, 514. **KW** Unions. Union Organization. Management. Firm Policy.

AB The direct role of employers in union organizing has long been a neglected part of the union organizing literature. In this study we examine the determinants and consequences of employer behavior when faced with an organizing drive. In general we interpret our results as consistent with the notion that firms behave in a profit maximizing manner in opposing an organizing drive and with the basic proposition that management opposition, reflected in diverse forms of behavior, is a key component in the on-going decline in private sector unionism in the United States.

PD January 1989. **TI** On the Divergence in Unionism Among Developed Countries. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2817; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 831, 122. **KW** Labor Force. Unions.

AB In this paper I explore the evolution of unionism in the 1970s and 1980s, when the post-oil shock world economy created a "crisis of unionism" throughout the western world. I try to explain why union representation of work forces fell in some countries but not in others and contrast union responses to the challenge of the period. Most strikingly, my analysis indicates that if 1980s trends continue the west will be divided between countries with strong trade union movements operating in a neo-corporatist system, as in Scandinavia, and countries with 'ghetto unionism' limited to special segments of the work force, as in the United States.

Froot, Kenneth A.

PD November 1988. **TI** Exchange Rate Pass-Through When Market Shares Matter. **AU** Froot, Kenneth A.; Klemperer, Paul D. **AA** Froot: Sloan School of Management, Massachusetts Institute of Technology. Klemperer: St. Catherine's College and Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 58; Institute of Economics and Statistics, St. Cross, Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PG** 30. **PR** No Charge. **JE** 431, 421, 411. **KW** Imports. Exchange Rates. Market Shares. Prices. Pass Through.

AB We investigate exchange rate pass through when firms' future demands depend on their current market shares. We show that profit maximizing foreign firms may either raise or lower their domestic currency export prices when the domestic currency appreciates temporarily (i.e., the "pass through" from exchange rate changes to import prices may be perverse) and that current import prices may be more sensitive to expected future exchange rates than to current exchange rates. We present evidence that suggests the behavior of expected future exchange rates may provide a clue to the puzzling behavior of United States import prices during the 1980s.

Fuchs, Victor

TI Comparable Worth in a General Equilibrium Model of the U.S. Economy. **AU** Beider, Perry; Bernheim, B. Douglas; Fuchs, Victor; Shoven, John B.

Fullerton, Don

PD November 1987. **TI** Tax Neutrality and Intangible Capital. **AU** Fullerton, Don; Lyon, Andrew. **AA** Fullerton: University of Virginia. Lyon: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-8; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 41. **PR** No Charge. **JE** 323, 522, 521, 024. **KW** Patents. Taxes. Corporate Taxes.

AB Many studies measure capital stocks and effective tax rates for different industries, but they consider only tangible assets such as equipment, structures, inventories, and land. However, firms also own intangible assets such as trademarks, copyrights, patents, a good reputation, or general production expertise. This paper provides alternative measures of the intangible capital stock, and it investigates implications for distortions caused by taxes.

PD January 1989. **TI** If Labor is Inelastic, Are Taxes Still Distorting. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2810; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 022, 024. **KW** Taxes. Labor Supply. Public Good.

AB Three recent papers measure the marginal excess burden of labor taxes in the United States. They obtain very different results even where they all use a zero uncompensated labor supply elasticity and assume that the additional revenue is spent on a public good that is separable in utility. The impression is that other parameters must explain the differences in results. Yet each paper uses a different concept of excess burden. Here, I calculate all three measures in one model and show how conceptual differences explain the results. Only one of these measures isolates the distortionary effects of taxes in a way that depends on the compensated labor supply elasticity. The other two measures incorporate income effects and thus depend on the actual change in labor.

Gabriel, Stuart A.

PD December 1988. **TI** Regional Labor Markets, Cost-of-Living Differentials, and Migration. **AU** Gabriel, Stuart A.; Shack, Marquez Janice; Wascher, William L. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Economic Activity Section Working Paper Series: 91; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 46. **PR** No Charge. **JE** 823, 824, 941. **KW** National Migration. Labor Markets. Labor Mobility. Migration. Economic Growth. Unemployment.

AB This paper examines the determinants of regional migration in the 1980s using a place-to-place migration model in which migration flows depend upon the relative economic opportunities in the origin and destination regions. Using the results of the model, we then examine the potential role for migration in diffusing the economic pressures associated with disparate regional economic growth. Although the results reinforce the notion that divergent regional growth was an impetus to migration in the 1980s, estimates of the employment status of movers suggest that the true effects of migration on unemployment differentials may be quite small.

Gagnon, Joseph E.

PD October 1988. **TI** Nominal Interest Rate Pegging Under Alternative Expectations Hypotheses. **AU** Gagnon, Joseph E.; Henderson, Dale W. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/94; International Monetary Fund, Washington, DC 20431. **PG** 28. **PR** No Charge. **JE** 311, 431, 432, 133, 023. **KW** Phillips Curve. Rational Expectations. Monetary Policy.

AB See addtional entry under this author and title.

PD November 1988. **TI** Nominal Interest Rate Pegging Under Alternative Expectations Hypotheses. **AU** Gagnon, Joseph E.; Henderson, Dale W. **AA** Gagnon: Division of International Finance, Board of Governors of the Federal Reserve System. Henderson: Georgetown University, National Bureau of Economic Research, and Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 336; Division of International Finance Board of Governors of the Federal Reserve System Washington, DC 20551. **PG** 52. **PR** No Charge. **JE** 311, 133, 131, 023. **KW** Interest Rates. Expectations. Monetary Policy. Phillips Curve.

AB Nominal interest rate pegging leads to instability in an IS-LM model with a vertical long-run Phillips curve and backward-looking inflation expectations. However, it does not lead to instability in several large multicountry econometric models, primarily because these models have nonvertical long-run Phillips curves. Nominal interest rate pegging leads to price level and output indeterminacy in a model with staggered contracts and rational expectations. However, when a class of money supply rules with interest rate smoothing is introduced, and interest rate pegging is viewed as the limit of interest rate smoothing, the price level and output are determinate.

Garber, Alan M.

TI Costs and Benefits of Prenatal Screening for Cystic Fibrosis. **AU** Fenerty, Joseph P.; Garber, Alan M.

Garber, Peter

PD November 1988. **TI** Bank Runs in Open Economies and the International Transmission of Panics. **AU** Garber, Peter; Grilli, Vittorio. **AA** Garber: Brown University. Grilli: Yale University. **SR** National Bureau of Economic Research Working Paper: 2764; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 442, 421, 411, 023. **KW** Open Economy Model. Banking. Savings. Financial Crisis. Banking Panics.

AB In this paper, we extend the bank run literature to an open economy model. We show that a foreign banking system, by raising deposit rates in the presence of a domestic banking panic, may generate sufficient liquid resources to acquire assets sold by the domestic banking system at bargain prices. In this case, foreign depositors will benefit from the domestic panic. We also show that our simple model is able to generate the spreading of panics. Perhaps not surprisingly, the crucial element in determining the propagation of financial crises is the effect of interest rates on savings decisions.

Garrett, Mario D.

TI Insider Power in Wage Determination. **AU** Blanchflower, David G.; Oswald, Andrew J.; Garrett, Mario D.

Gately, Dermot

PD October 1988. **TI** The U.S. Demand for Highway Travel and Motor Fuel. **AA** New York University. **SR** New York University Economic Research Reports: 88-28; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 20. **PR** No Charge. **JE** 723, 721. **KW** Gasoline. Motor Fuel. Crude Oil.

AB We examine the prospects for highway travel and fuel demand, based on an analysis of the past two decades. Our conclusions include the following. The rapid growth in fuel demand for passenger travel before 1978 was partly the result of rapid growth in the number of drivers. Such rapid growth in drivers will not continue into the 1990's, however. There has been an increasing role played by trucks (now 43 per cent of highway fuel), resulting from rapid growth in the number of small trucks, an increase in miles/vehicle for large trucks, and growth rates for large trucks' vehicle-miles one-fourth higher than Gross National Product growth. Despite projections by the Energy Department of a 6 per cent decline in highway fuel use by the year 2000, we project a 13 per cent increase. In contrast with their analysis, we project slower gains in fuel efficiency and faster growth for large trucks' vehicle miles, both of which are consistent with historical experience.

PD November 1988. **TI** Do Oil Markets Work. Are OPEC Dead. **AA** New York University. **SR** New York

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University Economic Research Reports: 88-37; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 32. **PR** No Charge. **JE** 723, 632. **KW** OPEC. Oil Markets. Oil Demand. Oil Supply. energy. Cartels.

AB In this paper we review what has happened in world oil markets since the 1970s and examine the prospects for Oil Producing Export Countries and world oil prices. Section 2 summarizes data for the last two decades: energy demand, by fuel and by region; oil demand and supply, by region; oil demand, by product and region; income growth and energy/oil demand, by region; oil prices, revenues and outputs, for OPEC and non-OPEC producers. Section 3 focuses on OPEC and its members, examining the differences between its members' output behavior and that of non-OPEC producers. Section 4 examines the important institutional changes of the last two decades, in comparison with the industry's stability for much of the century. Section 5 suggests an interpretation of OPEC's current situation as that of a prisoner's dilemma game, being repeated again and again. Section 6 summarizes the outlook for OPEC and the world oil market over the next two decades.

Gatto, Joseph

TI A Note on Specifications Used in Random Effects Models. **AU** Kelejian, Harry; Gatto, Joseph; Stephan, Scott.

Gautschi, David

TI The Demand for Retail Products and the Household Production Model: New Views on Complementarity and Substitutability. **AU** Betancourt, Roger; Gautschi, David.

Geanakoplos, J. D.

PD October 1988. **TI** Observability and Optimality. **AU** Geanakoplos, J. D.; Polemarchakis, H. M. **AA** Geanakoplos: Yale University. Polemarchakis: Columbia University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-216; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 21. **PR** No Charge. **JE** 313, 021, 026. **KW** Asset Markets. Von Neumann-Morgenstern Utility. Observability. Commodity Markets.

AB Observability of an individual's excess demand function for assets and commodities as all prices and revenue vary suffices in order to recover his von Neumann-Morgenstern utility function. This is generically the case, even when the asset market is incomplete and the cardinal utility indices state dependent, as long as there are at least two commodities traded in spot markets at each state of nature. On the contrary, if the response of individuals' excess demand for assets as prices in spot commodity markets vary is not observable, recoverability fails when the asset market is incomplete. In particular, it is not possible to contradict the claim that the competitive allocation is fully optimal in spite of the incompleteness of the asset market. This provides a characterization of the efficacy of intervention in an economy with an incomplete asset market based on the information available to a planner from the observable behavior of individuals.

Gentry, William

TI Testing the Rationality of State Revenue Forecasts. **AU** Feenberg, Daniel R.; Gentry, William; Gilroy, David; Rosen, Harvey S.

George, Glen

TI Marshallian vs. Walrasian Stability in an Experimental Market. **AU** Plott, Charles R.; George, Glen.

Gertler, Mark

PD November 1988. **TI** Financial Factors in Business Fluctuations. **AU** Gertler, Mark; Hubbard, R. Glenn. **AA** Gertler: University of Wisconsin. Hubbard: Columbia University. **SR** National Bureau of Economic Research Working Paper: 2758; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 131, 311, 023. **KW** Fluctuations. Capital Markets. Investment. Financial Markets. Volatility.

AB Recent research in macroeconomics -- both theoretical and empirical -- has resurrected the idea that capital market imperfections may be significant factors in business volatility by making new progress in characterizing the mechanisms. This paper outlines a case for a financial aspect to business fluctuations, in light of the contributions of this new literature. We present a theoretical model that explicitly motivates how financial factors may affect investment. We then report some existing tests of the model's basic predictions, and also present two new sets of results. The first demonstrates that the inverse relation between sales variability and size documented in many studies may be due to financial rather than technological factors, in contrast to the conventional view. The second lends support to a theoretical prediction of the model, that the effects of capital market frictions on investment should be asymmetric -having more impact in recessions than booms. The final section presents conclusions, and addresses some policy questions.

PD November 1988. **TI** Financial Capacity, Reliquification, and Production in an Economy with Long-Term Financial Arrangements. **AA** University of Wisconsin. **SR** National Bureau of Economic Research Working Paper: 2763; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 641, 315, 514, 511. **KW** Capacity Utilization. Production. Financial Contracts. Borrowers.

AB This paper characterizes a multi-period production economy in which borrowers and lenders enter long-term financial contracts. A key feature is that aggregate production and borrowers' capacity to absorb debt - their "financial capacity" - are jointly determined endogenous variables, in the spirit of Gurley and Shaw (1955). Expectations of future economic conditions govern financial capacity, which in turn influences current capacity utilization. Further, disturbances in the present may persist into the future by influencing borrowers' net asset positions. Finally, borrowers may substitute future for current production by preserving their assets in hard times, behavior akin to reliquification as described in Eckstein and Sinai (1986).

Giavazzi, Francesco

PD December 1988. **TI** Can the European Monetary System Be Copied Outside Europe. Lessons From Ten Years of Monetary Policy Coordination in Europe. **AU** Giavazzi, Francesco; Giovannini, Alberto. **AA** Giavazzi: Universita di Bologna. Giovannini: Columbia University. **SR** National Bureau of Economic Research Working Paper: 2786; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 432, 423. **KW** Economic Integration. Europe. Exchange Rates.

Stabilization Policy. Fiscal Reform.
AB This paper addresses the question of whether the European Monetary System can be copied outside Europe. The EMS is just one element of a more comprehensive design of institutional integration within Europe: the presence of the European Economic Community, and the dependence of EEC institutions upon exchange rate stability lend credibility to EMS exchange rate targets in a way that would not be present, say, among the United States, Europe and Japan. The EMS has also reproduced previous experiences of fixed exchange rates by not imposing the exchange rate constraint symmetrically upon all member countries: thus confirming that the institution of fixed rates per se cannot induce international monetary cooperation. Finally, the diferences in the use of the inflation tax among European countries and the divergent behavior of government debt after 1979 indicate that the pursuit of monetary convergence among countries with different fiscal structures might entail substantial fiscal reforms.

Gibbons, Robert

PD January 1989. **TI** Relative Performance Evaluation for Chief Executive Officers. **AU** Gibbons, Robert; Murphy, Kevin J. **AA** Gibbons: MIT and National Bureau of Economic Research. Murphy: University of Rochester. **SR** Princeton Industrial Relations Section Working Paper: 248; *Industrial Relations Section, Department of Economics,* Princeton University Princeton, NJ 08544-2098. **PG** 36. **PR** $1.50. **JE** 512, 514, 511. **KW** Agency Theory. Job Evaluation. Executive Compensation.
AB Measured individual performance often depends on random factors which also affect the performances of other workers in the same firm, industry, or market. In these cases, relative performance evaluation (RPE) can provide incentives while partially insulating workers from the common uncertainty. Basing pay on relative performance, however, generates incentives to sabotage the measured performance of co-workers, to collude with co-workers and shirk, and to apply for jobs with inept co-workers. RPE contracts also are less desirable when the output of co-workers is expensive to measure or in the presence of production externalities, as in the case of team production. The purpose of this paper is to review the benefits and costs of RPE and to test for the presence of RPE in one occupation where the benefits plausibly exceed the costs: top-level management.

Gilbert, Richard

PD October 1988. **TI** Optimal Patent Length and Breadth. **AU** Gilbert, Richard; Shapiro, Carl. **AA** Gilbert: University of California, Berkeley. Shapiro: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 28; Department of Economics/Woodrow Wilson School of Public and International Affairs Princeton University, Princeton, NJ 08544. **PG** 10. **PR** No Charge. **JE** 621, 612, 022. **KW** Patents. Technology. Innovation. Incentives.
AB In providing rewards to innovators, there is a tradeoff between patent length and breadth. This paper provides quite general conditions under which the optimal patent policy involves infinitely-lived patents, with patent breadth adjusting to provide the required reward for innovation.

Gilroy, David

TI Testing the Rationality of State Revenue Forecasts. **AU** Feenberg, Daniel R.; Gentry, William; Gilroy, David; Rosen, Harvey S.

Giovannini, Alberto

PD March 1988. **TI** Exchange Rate Dynamics with Sticky Prices: The Deutsche Mark, 1974-1982. **AU** Giovannini, Alberto; Rotemberg, Julio J. **AA** Giovannini: Columbia University. Rotemberg: Massachusetts Institute of Technology. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-84-15R; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 37. **PR** $5.00 academics and non-profit institutions; $6.00 corporations (add $1.00 outside United States, Canada and Puerto Rico). **JE** 431, 227, 134. **KW** Exchange Rates. Adjustment Costs. Sticky Prices. Dynamic Model. Germany.
AB This paper estimates simultaneously dynamic equations for the Deutsche mark/dollar exchange rate and the German wholesale price index. These emerge from a model in which German prices are sticky. The stickiness is due to costs of adjusting prices of the form posited by Rotemberg (1982). The main results of the empirical analysis are: first, the version of the model where prices are perfectly flexible is rejected. Second, in spite of the substantial price stickiness, we find that the nominal exchange rate undershoots in response to monetary innovations like those which appear to be typical in Germany.

PD November 1988. **TI** How Do Fixed-Exchange-Rates Regimes Work: The Evidence From the Gold Standard, Bretton Woods and the EMS. **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 2766; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 431, 432, 227. **KW** Exchange Rates. Current Accounts. Prices. Gold Standard.
AB This paper defines two competing hypotheses on the working of fixed exchange rates. The "symmetry" hypothesis states that every country is concerned with the good functioning of the system, and cannot afford to deviate from world averages. Every country is just left to follow the "rules of the game", that is to avoid sterilizing balance of payments flows. The world price level is pegged down either by an external numeraire like gold, or by cooperation among central banks, in a fiat currency system. The competing hypothesis states that fixed-exchange-rates regimes are inherently asymmetric: they are characterized by a "center country" which provides the nominal anchor for the others, either by managing the gold parity in a centralized fashion, or by arbitrarily setting some other nominal anchor. I discuss the empirical evidence to discriminate between the two hypotheses, by studying the institutional features and the data on three experiences of fixed rates: the International Gold Standard, the Bretton Woods regime, and the European Monetary System.

TI Can the European Monetary System Be Copied Outside Europe. Lessons From Ten Years of Monetary Policy Coordination in Europe. **AU** Giavazzi, Francesco; Giovannini, Alberto.

Goldfeld, Stephen M.

PD December 1988. **TI** Output Targets, Input Rationing and Inventories. **AU** Goldfeld, Stephen M.; Quandt, Richard E. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 99; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 27. **PR** $3.00. **JE** 027, 022, 052. **KW** Centrally Planned Economies. Output Target. Input Rationing. Inventories.

AB The paper introduces and elaborates a model of the enterprise in a centrally planned economy. Inputs can be purchased on two dates. On the first of these dates the input is available without limitation, but on the second of these dates it may be rationed. The enterprise, which has to produce so as to meet an output target on the second date may insure itself against not having enough inputs by purchasing early at the cost of some carrying charges. The model is, in a sense, a formalization of a suggestion by Kornai that the anticipation of future rationing may induce anticipatory input purchases by the enterprise. The paper examines in some detail the dependence of the early purchases on the parameters of the problem such as the parameters of the production function and of the stochastic distribution of the rations made available to the enterprise.

Goodspeed, Timothy

PD May 1988. **TI** Some Applications of the Theory of Rationing to Problems in Public Economics. **AU** Goodspeed, Timothy; Schwab, Robert. **AA** Goodspeed: Department of the Treasury. Schwab: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-31; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 31. **PR** No Charge. **JE** 022. **KW** Rationing. Public Economics. Quantity Constraints.

AB Many problems in public economics involve situations in which the quantity of one or more goods available to consumers is restricted. In this paper we use a series of examples to suggest that the theory of rationing is a useful tool in the analysis of such problems. We argue that rationing theory can unify a wide range of seemingly diverse issues, that central concepts in public economics have rationing analogs, and that both theoretical and empirical work can benefit from a rationing framework. Moreover, we show that in many problems quantity constraints have important implications which have been overlooked in the literature.

Goulder, Lawrence H.

PD June 1988. **TI** Savings Promotion, Investment Promotion, and International Competitiveness. **AU** Goulder, Lawrence; Eichengreen, Barry. **AA** Goulder: Harvard University. Eichengreen: University of California, Berkeley and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 135; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 69. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 431, 323, 411. **KW** Current Account. Exports. Tax Policy. Capital Mobility.

AB In an open economy, savings- and investment-promoting policies may have very different effects on the capital account and on the viability of export-oriented and import-competing industries. The nature of the effects is often ambiguous in analytical models. This paper employs a simulation model that combines a detailed treatment of industry interactions, attention to adjustment dynamics, and an integrated treatment of current and capital account transactions to investigate these effects in both the short and long run. We focus on the different effects of savings- and investment-promoting United States tax policies on the viability of United States export industries. We compare results under the assumption of no international capital mobility (and no international asset transactions) with those under the assumption of full international mobility (which assumes no barriers to or costs of such transactions).

PD January 1989. **TI** Tax Policy, Housing Prices, and Housing Investment. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 2814; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323, 932. **KW** Tax Reform. Taxes. Housing. Capital Investment.

AB This paper employs a general equilibrium model to assess the effects of major components of the Tax Reform Act of 1986 on the performance of housing and other industries. The model considers both short-term and long-term effects on housing demands, house values, and investment in housing. Model results indicate that in the short run, the recent cuts in corporate tax rates, elimination of investment tax credits, and scaling back of depreciation deductions together have negative implications for investment in nonresidential capital but positive effects on housing investment. This mainly reflects the fact that prior to the '86 tax reforms, investment tax credits and favorable depreciation rules disproportionately benefitted nonhousing industries; thus their removal especially affects industries other than housing and helps "crowd in" housing investment. Over the long term, however, the tax changes imply lower investment in housing as well as in other types of capital. The reduced housing investment stems from adverse effects of the reforms on aggregate output and real income.

Graham, John D.

TI Risk Compensation and Safety Belt Use Laws. **AU** Evans, William; Graham, John D.

TI An Estimate of the Lifesaving Benefit of Child Restraint Use Legislation. **AU** Evans, William; Graham, John.

Granger, C. W. J.

PD November 1988. **TI** The Algebra of I(1). **AU** Granger, C. W. J.; Hallman, Jeff. **AA** Granger: University of California, San Diego. Hallman: Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 45; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 53. **PR** No Charge. **JE** 211. **KW** Co-Integration. Unit Roots. Stationarity. Nonlinear Transformations.

AB This paper considers the effects of nonlinear transformations on integrated, particularly I(1) processes. If (t) is integrated, what are the long-run properties of f(x(+)). Both theoretical properties and empirical estimates of relevant statistics such as estimated autocorrelations are examined. The behavior of some common tests of integratedness applied to transformed series can be quite different from the linear case, often rejecting the unit root hypothesis for transformations which retain long memory properties. Tests that are invariant to monotone transformations are proposed. Also considered are transformations of pairs of series and nonlinear properties of cointegrated series.

Gray, Wayne B.

PD January 1989. **TI** A Behavioral Approach to Compliance: OSHA Enforcement's Impact on Workplace

Accidents. **AU** Gray, Wayne B.; Scholz, John T. **AA** Gray: Clark University. Scholz: State University of New York, Stony Brook. **SR** National Bureau of Economic Research Working Paper: 2813; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 822, 631. **KW** Working Conditions. Manufacturing. Employee Safety.

AB This study tests for effects of OSHA enforcement, using data on injuries and OSHA inspections for 6,842 manufacturing plants between 1979 and 1985. We use measures of general deterrence (expected inspections at plants like this one) and specific deterrence (actual inspections at this plant). Both measures of deterrence are found to affect accidents, with a 10 per cent increase in inspections with penalties predicted to reduce accidents by 2 per cent. The existence of specific deterrence effects, the importance of lagged effects, the asymmetrical effects of probability and amount of penalty on accidents, and the tendency of injury rates to self-correct over a few years support a behavioral model of the firm's response to enforcement rather than the traditional 'expected penalty' model of deterrence theory.

Green, Jerry

PD March 1988. **TI** Renegotiation and the Form of Efficient Contracts. **AU** Green, Jerry; Laffont, Jean Jacques. **AA** Green: Harvard University. Laffont: GREMAQ and California Institute of Technology. **SR** Caltech Social Science Working Paper: 672; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 45. **PR** No Charge. **JE** 022, 026. **KW** Renegotiation. Contract Theory. Commitment. Principal-Agent Theory. Common Knowledge. Bargaining.

AB Two parties may agree to a mutually binding contract that will govern their behavior after an uncertain event becomes known. As there is no agent who can both observe this uncertain outcome and enforce the contract, contingent agreements are precluded. However, the parties recognize that the uncertain event will be common knowledge for them, and that they will be able to renegotiate the contract voluntarily, provided that they both gain in doing so. When structuring the original contract they can foresee this renegotiation phase. Efficient contracts are those that perform best, when taking this into account. This paper studies the form of such efficient contracts. It is shown that it is always better to have a contract than it is to have none, no matter which party has the preponderence of bargaining strength in the renegotiation phase. We also study whether renegotiation can substitute completely for the absence of contingent contracts. We characterize a family of cases where it can. And we present some "second-best" results in others, where it cannot.

TI Novelty and Disclosure in Patent Law. **AU** Scotchmer, Suzanne; Green, Jerry.

Greenwald, Bruce

PD May 1988. **TI** Imperfect Information, Finance Constraints, and Business Fluctuations. **AU** Greenwald, Bruce; Stiglitz, Joseph. **AA** Greenwald: Bell Communications Research. Stiglitz: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 15; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 38. **PR** No Charge. **JE** 521, 131, 133, 023. **KW** Asymmetric Information. Business Cycles. Economic Fluctuations.

AB This paper describes a macroeconomic model which incorporates constraints on firm financing decisions of the sort likely to arise from the kinds of asymmetries of information discussed by Akerlof '1970(. The macro model is of a traditional sort and assumes rational expectations by all agents. Nevertheless the finance constraints give rise to persistent business cycles that share many of the characteristics of actual economic fluctuation. Unanticipated policy changes in the model have impacts similar to those described in standard Keynesian models, although the mechanisms through which they operate are quite different from those of the usual Keynesian model (and hence the indicators of appropriate policy are also different). Anticipated policy changes are largely classical in their effects even in "unemployment" environments.

Grilli, Vittorio

PD November 1988. **TI** Seigniorage in Europe. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 2778; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 432, 411, 311. **KW** Seigniorage Revenue. Europe. Monetary Policy. Exchange Rate.

AB In this paper, based on the experience of ten European countries, we study the relevance of seigniorage revenues in the recent past, and we speculate about their importance in the near future. We find that the members of the European community differ widely in the way they manage monetary policies. While for some of the European countries we could not identify any consistent seigniorage policy, for others seigniorage appears to have been an important component of their financing policies. This lack of consensus about the role of monetary policies is a potential source of conflict in designing common exchange rate policies. A formal analysis of the current status of the finances of the governments of the ten European countries also revealed that several of them are now following budget policies that are potentially incompatible with their long run solvency.

TI Bank Runs in Open Economies and the International Transmission of Panics. **AU** Garber, Peter; Grilli, Vittorio.

PD January 1989. **TI** Nominal Exchange Rate Regimes and the Real Exchange Rate Evidence from the U.S. and Britain: 1885-1986. **AU** Grilli, Vittorio; Kaminsky, Graciela. **AA** Grilli: Yale University. Kaminsky: University of California, San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 89-1; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PR** $3.00; checks payable to UC Regents. **JE** 431, 432, 131. **KW** Exchange Rate Regimes. Exchange Rates. Fixed Exchange Rates. International Finance.

AB Two propositions are common in the international finance literature: (1) the real exchange rate is a random walk, (2) the real exchange rate time series properties essentially depend on the nominal exchange rate regimes. The first proposition has been used in support of the claim that PPP cannot even be considered a long run relationship, since deviations from it are permanent in nature. The second proposition has been used as evidence of price stickiness. This paper presents evidence that the persistence observed in the shocks to the real exchange rate is a characteristic of the post WWII period, instead in the prewar period we observe the presence of larger transitory fluctuations. Also although real exchange rate volatility appears to be different between nominal and fixed exchange rate regimes, these differences are not as systematic and large as the postwar data suggest.

Groff, Robert

TI Vertical Integration and Industry Growth. **AU** Perry, Martin; Groff, Robert.

Grossman, Gene

TI Intellectual Property Rights and North-South Trade. **AU** Chin, Judith; Grossman, Gene.

PD December 1988. **TI** Comparative Advantage and Long-Run Growth. **AU** Grossman, Gene; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Tel Aviv University and Institute for Advanced Studies, Jerusalem. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 39-88; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 65. **PR** No Charge. **JE** 411, 111, 621, 422. **KW** Trade Policy. Economic Growth. Comparative Advantage. Long Run Growth. Commercial Policy. Technological Change. R&D.

AB We construct a dynamic, two-country model of trade and growth in which endogenous technological progress results from the profit-maximizing behavior of entrepreneurs. We study the role that the external trading environment and that trade and industrial policies play in the determination of long run growth rates. We find that cross-country differences in efficiency at R&D versus manufacturing (i.e., comparative advantage) bear importantly on the growth effects of economic structure and commercial policies. Our analysis allows for both natural and acquired comparative advantage, and we discuss the primitive determinants of the latter.

PD January 1989. **TI** Comparative Advantage and Long-Run Growth. **AU** Grossman, Gene; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Tel Aviv University. **SR** National Bureau of Economic Research Working Paper: 2809; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 621, 111, 422, 411. **KW** Technology. Trade. Economic Growth. Commercial Policy. Dynamic Model.

AB See addtional entry under this author and title.

Grossman, Michael

TI Demographic Analysis of Birthweight-Specific Neonatal Mortality. **AU** Corman, Hope; Grossman, Michael; Joyce, Theodore.

Grossman, Sanford

PD October 1988. **TI** Portfolio Insurance in Complete Markets: A Note. **AU** Grossman, Sanford; Vila, Jean Luc. **AA** Grossman: Princeton University. Vila: New York University. **SR** New York University Salomon Brothers Center Working Paper: 493; 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** 8. **PR** No Charge. **JE** 313, 311. **KW** Portfolio. Investment. Risky Assets. Wealth.

AB This note presents an elementary derivation of the optimal investment strategy of an investor who wants to assure that his investment in risky assets does not lead his wealth to fall below a predetermined floor.

Guay, Richard

PD December 1988. **TI** Estimates of GDP, Monthly, 1962 to 1985. **AU** Guay, Richard; Milbourne, R. D.; Otto, G.; Smith, G. W. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 737; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 26. **PR** $3.00 Canada and United States; $3.50 Foreign. **JE** 221, 227, 131. **KW** Kalman Filter. Interpolation. Price deflator. Gross Domestic Product. Canada.

AB In this paper we estimate a monthly series for Gross Domestic Product at market prices for Canada and a price deflator for the period 1962 to 1985. These estimates are consistent with the quarterly estimates which form the basis of the new national income measures of Statistics Canada. We combine the quarterly estimates from Statistics Canada with monthly data in a Kalman filter framework. In addition to presenting estimates of real GDP which can be used in monthly models, we present the only monthly price deflator of any income measure in Canada.

Guidotti, Pablo

PD August 1988. **TI** Macroeconomic Interdependence under Capital Controls: A Two-Country Model of Dual Exchange Rates. **AU** Guidotti, Pablo; Vegh, Carlos. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/74; International Monetary Fund, Washington, D.C. 20431. **PG** 29. **PR** No Charge. **JE** 431, 441, 422, 411. **KW** Capital Mobility. Exchange Rates. Monetary Policy. Shock Transmission. Open Economy.

AB This paper studies the transmission of monetary and fiscal disturbances under capital controls that are implemented via dual exchange rates. The results are contrasted with those under fixed exchange rates and perfect capital mobility. While under perfect capital mobility, permanent policy disturbances have no real effects abroad and the adjustment is instantaneous, under dual exchange rates, these disturbances are transmitted abroad and adjustment is gradual. The co-movement of both domestic and foreign consumption and domestic and foreign real interest rates is negative during the transition period, independently of the type of disturbance.

Haliassos, Michael

PD December 1987. **TI** Multi-Asset Economies with Staggered Portfolio Adjustments. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-14; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 32. **PR** No Charge. **JE** 313, 311, 021. **KW** Portfolios. General Equilibrium. Uncertainty. Asset Returns. Government Policy.

AB There is a striking discrepancy between standard Finance models incorporating rate of return uncertainty and perfect foresight models with regard to their implications about asset demands, rate of return behavior, and government policy effectiveness. This paper shows that most standard setups give a distorted view of the importance of uncertainty for the behavior of asset returns and are biased towards exhibiting policy neutrality. This is due to the questionable assumption of simultaneous financial trading. The paper presents two general equilibrium setups with staggered portfolio adjustments in which the rates of return on jointly held assets are not equal over every time period, nor their rate differentials constant, even in steady state. The setups are distinguished by the sense in which a portfolio is kept "constant" within each holding period.

PD July 1988. **TI** The Macroeconomics of Government Finance. **AU** Haliassos, Michael; Tobin, James. **AA** Halliassos: University of Maryland. Tobin: Yale University. **SR** University of Maryland Department of Economics Working Paper Series: 88-42; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 102. **PR** No Charge. **JE** 322, 321. **KW** Federal Budget. Government Expenditures. Fiscal Policy.
AB This is a critical survey of the literature on the implications of government financial policy for economic activity. The central question is whether the choice of how to finance a given path of government expenditure (i.e. through taxes, nonmonetary debt or money creation) has any real effects. We first present measures of the budget deficit and discuss early views on deficits and on the implications of the government budget identity for macroeconomic analysis. We then evaluate recent analyses, both theoretical and empirical, focusing on (i) the Debt Neutrality hypothesis of Robert Barro, (ii) the effects of the choice between tax- and money-financing of government expenditures, and especially the issues of monetary superneutrality and of the Fisher hypothesis, and (iii) the effects of open market operations. In all three cases, we first present theorems purporting to show the irrelevance of each type of financial policy. Then, we identify conditions under which such theorems would fail.

PD December 1988. **TI** Sustainability of Macroeconomic Policies, Inflation Targeting, and Crowding Out. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-53; Department of Economics, University of Maryland College Park, MD 20742. **PG** 24. **PR** No Charge. **JE** 321, 311, 023, 133. **KW** Inflation Targets. Crowding Out. Debt Neutrality. Monetary Policy. Fiscal Policy.
AB The recent OECD experience of persistently high deficits combined with attempts to target inflation posed the question of whether current macroeconomic policies could be maintained over the longer run or whether they would have to be dropped. This paper suggests a formal definition of sustainability appropriate to situations in which macro policies are decided by reference to different objectives and are then persistently adhered to. It is shown that Friedman's x per cent rule for targeting inflation and a large class of other rules with or without feedback are unsustainable in general. This is because they fail to take account of an important interdependence between fiscal and monetary policies when inflation is targeted. With regard to fiscal policy, it is shown that it is possible for "crowding in" of private capital to occur even when long run inflation is targeted.

Hall, Bronwyn

PD December 1988. **TI** The R&D Master File Documentation. **AU** Hall, Bronwyn; Cummins, Clint; Laderman, Elizabeth; Mundy, Joy. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Technical Paper: 72; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 229, 631. **KW** Data Sets. Micro Data. Manufacturing.
AB This document describes the panel of publicly traded United States manufacturing firms which was created and updated at the National Bureau of Economic Research from 1978 through 1988 within the Productivity Program. The panel consists of about 2600 large manufacturing firms with three to twenty-seven years of data each; the period covered by the sampling frame was 1976 through 1985, with data back to 1959 where possible. There are approximately 70 variables for each firm-year of data, consisting of income statement and balance sheet variables and the corresponding common stock data. The technological data available for these firms consist of R&D expenditures and patents granted, both by date of application and by granting date. The patents data are available only through about 1981, due to the limitations of our sources and budget. The firms on the file are identified both by their CUSIP number and by name, making it feasible to match this data to other sources.

Hall, Robert

PD December 1988. **TI** Substitution Over Time in Work and Consumption. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 2789; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 131, 133, 023. **KW** Intertemporal Substitution. Macroeconomics. Fluctuations.
AB Sir John Hick's Value and Capital provided the theoretical foundation for an important element of modern macroeconomics. Intertemporal substitution - deferral or acceleration of economic activity in response to the real interest rate and other incentives - is the mechanism generally relied upon in equilibrium theories of macroeconomics to explain the irregular evolution of the economy over time. Even theorists who question the pure market-clearing paradigm are concerned with intertemporal substitution in measuring deadweight burden of fluctuations. This paper surveys recent empirical evidence on intertemporal substitution with regard to the type of fluctuations model introduced in Value and Capital.

Hallman, Jeff

TI The Algebra of I(1). **AU** Granger, C. W. J.; Hallman, Jeff.

Haltiwanger, John C.

PD January 1987. **TI** The Effect of Taxes on Inventories. **AU** Haltiwanger, John C.; Robinson, Marc S. **AA** Haltiwanger: Johns Hopkins University. Robinson: University of California, Los Angeles and Stanford University. **SR** Johns Hopkins Department of Economics Working Paper: 182; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 28. **PR** No Charge. **JE** 541, 323, 131, 522. **KW** Taxes. Inventories. Accounting.
AB In this paper we undertake an empirical study of the interaction between taxes and inventories. Since corporate tax rates have changed little over the last 20 years, inventory accounting rules have been the source of most of the changes in inventory tax incentives. Building on results of the inventory accounting literature, we show that firms using the LIFO accounting method should hold higher levels of inventories over the entire business cycle than firms using FIFO. Analysis of annual data on individual firms over 1969-82 support this

hypothesis. The inventories of firms using LIFO also appear to be less responsive to sales fluctuations and somewhat more sensitive to financial holding costs.

PD December 1987. **TI** The Impact of Anticipated Demand Movements on Collusive Behavior. **AU** Haltiwanger, John; Harrington, Joseph Jr. **AA** Haltiwanger: University of Maryland. Harrington: The Johns Hopkins University. **SR** University of Maryland Department of Economics Working Paper Series: 88-15; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 74. **PR** No Charge. **JE** 022. **KW** Collusion. Cartel. Market Demand.
AB Consider an industry in which firms are colluding in their price decisions. If the market demand function shifts, the cartel will certainly adjust its price in response to the new demand conditions. Suppose, however, the shift in market demand was anticipated prior to its occurrence. In that situation, how does the anticipation of a future change in demand affect the current pricing behavior of a cartel. This study investigates the impact of anticipated movements in market demand on the difficulty of collusion and on cartel pricing. While a general class of demand movements is examined, of particular interest is understanding the relationship between the time path of demand and the time path of price when demand is subject to cyclic fluctuations. The empirical implications of our analysis are also explored.

TI Inventories and the Propagation of Sectoral Shocks. **AU** Cooper, Russell; Haltiwanger, John.

PD April 1988. **TI** The Impact of Cyclical Demand Movements on Collusive Behavior. **AU** Haltiwanger, John; Harrington, Joseph E. Jr. **AA** Haltiwanger: Univ. of Maryland. Harrington: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 209; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 43. **PR** No Charge. **JE** 026, 611, 616, 131. **KW** Collusion. Business Cycle. Supergames. Expectations. Aggregate Demand.
AB This study investigates the effect of the business cycle on optimal collusive pricing. The market demand function is specified to follow a cyclical pattern in order to capture two important properties of the business cycle - demand moves over time and firms' expectations on future demand move over time. Though the incentive to deviate from a collusive agreement is greatest during booms, we find that firms find it most difficult to collude during recessions as the foregone profits from inducing a price war are relatively low. An implication of this effect for pricing behavior is that, holding the level of demand constant, price is lower when demand is declining than when demand is rising. Consistent with previous theoretical work, we find firms price countercyclically for a range of values for the discount factor. However, numerical simulations reveal a greater tendency for firms to price countercyclically during recessions than during booms.

PD May 1988. **TI** Responders Versus Nonresponders: A New Perspective on Heterogeneity. **AU** Haltiwanger, John; Waldman, Michael. **AA** Haltiwanger: University of Maryland. Waldman: University of California, Los Angeles. **SR** University of Maryland Department of Economics Working Paper Series: 88-34; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 27. **PR** No Charge. **JE** 022. **KW** Heterogeneity. Rationality. Nonresponse.
AB This paper considers the implications of a particular type of heterogeneity - one which characterizes a large number of economic environments, but which has not received any systematic treatment in the literature. We refer to this heterogeneity as responders versus nonresponders. The paper begins by providing a general method of analysis for environments characterized by this heterogeneity. It then proceeds to show how the perspective can be utilized first to develop new insights across a variety of settings, and second to help better understand a number of already existing results in the literature.

PD June 1988. **TI** Rational Expectations in the Aggregate. **AU** Haltiwanger, John C.; Waldman, Michael. **AA** Haltiwanger: University of Maryland. Waldman: University of California, Los Angeles. **SR** University of Maryland Department of Economics Working Paper Series: 88-36; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 26. **PR** No Charge. **JE** 023, 022. **KW** Rational Expectations. Aggregation. Representative Agent.
AB One of the major recent innovations in economic theory is the emergence of the rational expectations hypothesis. In this paper we consider the relationship between the way rational expectations is typically employed in practice and the argument initially put forth to justify its use. In practice rational expectations has typically meant what we will refer to as standard rational expectations. By standard rational expectations we mean that the expectation of each agent taken separately is by itself consistent with the predictions of the relevant theory. This, however, is different than the argument frequently put forth by proponents of the rational expectations hypothesis to justify its use. That argument is that on an aggregate level expectations should be consistent with the predictions of the relevant theory. Underlying the common usage of the standard rational expectations assumption is a belief that, if expectations are rational in the aggregate, then expectational deviations across agents would tend to cancel out. In this paper we formally investigate the relationship between standard rational expectations and what we will refer to as aggregate rational expectations.

PD July 1988. **TI** Inventories, Orders, Temporary and Permanent Layoffs: An Econometric Analysis. **AU** Haltiwanger, John; Maccini, Louis. **AA** Haltiwanger: University of Maryland. Maccini: The Johns Hopkins University. **SR** University of Maryland Department of Economics Working Paper Series: 88-40; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 76. **PR** No Charge. **JE** 131, 133, 023, 022. **KW** Layoffs. Inventories. Unemployment. Buffer Stocks.
AB In this paper, we conduct an empirical analysis of the interaction of order backlogs, inventories and labor input decisions. We distinguish between temporary layoffs, permanent layoffs, new hires and hours as mechanisms that are apt to respond to changes in economic conditions differently and to interact with inventories and order backlogs in a different fashion. There are several broad objectives that serve as a basis for our inquiry. Our primary objective is to characterize the nature of the interaction between buffer stock variables like inventories and unfilled orders and the various alternative labor input variables. In so doing, we are interested in the role of buffer stocks in generating persistence in layoffs and thus unemployment over the cycle. We are also interested in whether the nature of the interaction of inventories and the

alternative labor input variables might help explain some of the puzzles that have emerged in the empirical inventory literature.

Ham, John

TI Unemployment Discouraged Workers and Female Labour Supply. **AU** Blundell, Richard; Ham, John; Meghir, Costas.

Hamao, Yasushi

TI Predictable Bond and Stock Returns in the United States and Japan: A Study of Long-Term Capital Market Integration. **AU** Campbell, John Y.; Hamao, Yasushi.

Hamermesh, Daniel S.

PD December 1988. **TI** Shirking or Productive Schmoozing: Wages and the Allocation of Time at Work. **AA** Michigan State University. **SR** National Bureau of Economic Research Working Paper: 2800; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 824, 821. **KW** Wages. Employment. Productivity. Earnings. Leisure.

AB Major strands of recent macroeconomic theory hinge on the relation of workers' efforts to their wages, but there has been no direct general evidence on this relation. This study uses data from household surveys for 1975 and 1981 that include detailed time diaries to examine how changes in the use of time on the job affect wages. Additional time spent by the average worker relaxing at work has no impact on earnings (and is presumably unproductive). Additional on-the-job leisure does raise earnings of workers whose break time is very short. Only among union workers, for whom additional leisure time (in unscheduled breaks only) appears productive, does this pattern differ. The results suggest that further growth in on-the-job leisure will reduce productivity (output per hour paid-for), that monitoring workers can yield returns to the firm, but that entirely eliminating breaks is counterproductive.

Hamilton, Bruce W.

PD June 1987. **TI** Merit Pay Increases and the Market for Labor. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 193; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 33. **PR** No Charge. **JE** 824, 821. **KW** Labor Supply. Wages. Life-Cycle Theory.

AB I develop a model in which labor supply in each year determines the wage in the next year. The shadow value of time (w *) is thus the wage plus the effect of an hour of work upon future income. Early in life w * is much higher than the observed wage; it then rises more slowly than w, and begins to decline after mid-life. I show how labor supply estimates which ignore this wage-growth endogeneity can be badly biased, for some types of samples labor supply and intertemporal substitution elasticity estimates are sign-reversed.

Hamilton, Colleen

PD October 1988. **TI** Coalitions in the Uruguay Round: The Extent, Pros and Cons of Developing Country Participation 1, 2. **AU** Hamilton, Colleen; Whalley, John. **AA** The University of Western Ontario. **SR** National Bureau of Economic Research Working Paper: 2751; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 421, 113, 121. **KW** Developing Countries. Negotiations.

AB This paper both documents the involvement of developing countries in coalitional activity in the current GATT Uruguay round thus far, and provides a rudimenting evaluation of the pros and cons of the different options for them as far as coalitional strategies are concerned. The main conclusions are that much of the coalitional activity involving developing countries thus far in the round has been agenda-moving and joint proposal-making, rather than negotiating involving exchanges of concession. At the same time, however, coalitional activity by a larger group of mid-sized developed and smaller developing countries who see a major interest in preserving the multilateral system has been central to the process.

Hansson, Ardo H.

PD July 1988. **TI** Exchange Rate Dynamics in a Two-Party Democracy: The Role of Learning. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-23; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 33. **PR** $.20 per page Canadian to other than educational institutions. **JE** 431, 023. **KW** Exchange Rates. Bayesian Learning. Political Economy.

AB In an earlier paper, the author describes exchange rate dynamics in a two-party democracy with known cross-party policy differences, but where the outcome of a future election is uncertain. The assumption of known policies is relaxed in this paper. True policy rules are obscured by stochastic disturbances, but private agents possess prior beliefs about these, which are revised through a Bayesian learning process. Pre-election, election day, and post-election exchange rate dynamics are described. The degree to which initial priors are incorrect, and the stubbornness with which these are held, are key determinants of qualitative dynamics. Representative dynamics are depicted via simulation. For plausible parameterizations, dynamics arguably resemble those in the United States over the 1974-84 period.

PD July 1988. **TI** Partisan Monetary Policy and Exchange Rate Dynamics in a Two-Party Democracy. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-21; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 34. **PR** $.20 per page Canadian to other than educational institutions. **JE** 431, 411, 023. **KW** Exchange Rates. Elections. Political Economy.

AB In this paper, a theory of exchange rate dynamics based on differences between competing political parties is motivated and developed. Motivations include the previous success of closed economy partisan macroeconomic models in explaining "domestic" outcomes, the particular relevance of regime shifts in asset markets, and the observed pattern of exchange rate turning points near elections in several countries. The model is based on a forward-looking monetary approach, with the policies pursued by each of two parties known by economic agents. The uncertainty of future election outcomes, along with its resolution, are shown to have important implications for exchange rate dynamics.

PD August 1988. **TI** Politics, Institutions and Cross-Country Inflation Differentials. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-22; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 34. **PR** $.20 per page Canadian to other than educational institutions. **JE** 134, 123, 311. **KW** Inflation. Monetary Policy. Economic Fluctuations.

AB This paper describes the conceptual and empirical relationship between political and institutional factors and the different inflation performances of thirteen OECD countries. A menu of potentially important factors is described along with data which proxy for these. Empirical estimates of a simple model suggest that several such factors are operative, with central bank independence and the level of social consensus being particularly important.

Hardy, Daniel C.

PD December 1988. **TI** Expected Stock Returns and International Diversification. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 98; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 53. **PR** $3.00. **JE** 522, 431, 441. **KW** Stock Returns. International Diversification. Capital Market. Portfolio. Transaction Costs.

AB How great are the gains available from holding an internationally diversified portfolio and from predicting changes in stock returns over time, and are these strategies practical given the transactions and informational costs which they entail. Excess stock returns in six major markets can be forecast using short term interest rates, the term structure and dividend yields. Various portfolios are constructed and compared, and it is shown that diversification is more advantageous than attempting to 'time' the United States market alone; much better performance can be achieved by predicting returns on an internationally diversified portfolio, even after allowing for transactions costs.

Harrington, Joseph E. Jr

PD May 1987. **TI** The Role of Risk Preferences in Bargaining for the Class of Symmetric Voting Rules. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 191; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 44. **PR** No Charge. **JE** 026, 025. **KW** Bargaining Theory. Voting Rules. Risk Preferences. Perfect Equilibrium.

AB The role of risk preferences in determining the equilibrium allocation in an n-player bargaining game is investigated for the class of symmetric voting rules. For this purpose the set of stationary subgame perfect equilibria is derived for an n-player infinite horizon alternating offer model in which players have heterogeneous preferences. Confirming results previously derived in the bargaining literature, it is found for the case of a unanimity voting rule that the less risk averse players fare better in bargaining in that their expected share is greater than that of the more risk averse players. However, when acceptance of a proposal requires less than unanimous approval and the preferences of the players are not too diverse, it is instead the more risk averse players who fare better in bargaining. The advantage to being relatively risk averse emanates from having a higher probability of having one's vote bought when not a proposal maker. Risk preferences are then found to play a fundamentally different role when bargaining takes place under a non-unanimity voting rule.

PD May 1987. **TI** The Maximal Degree of Collusion in Trigger Strategy Equilibria: The Cases of Exogenous and Endogenous Market Structure. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 192; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 40. **PR** No Charge. **JE** 022, 026, 611, 514, 511. **KW** Collusion. Repeated Games. Entry. Perfect Equilibrium. Cooperative Games. Cartel. Merger.

AB This study derives the best collusive outcome which firms can support by a subgame perfect equilibrium when deviation from cooperation is punished by reversion to a Nash equilibrium for the one-period game. When the number of firms is fixed, it is found that as long as firms positively value future profits, some degree of cooperation can be supported. Furthermore, the optimal cartel output rate is shown to be a strictly decreasing function of the discount factor when the discount factor is sufficiently small. When the number of firms is endogenously determined by a free-entry condition and there is a strictly positive cost to entry, the unconstrained joint profit maximum is an equilibrium outcome if the discount factor is sufficiently high. This extends the well-known result for the case of a fixed number of firms to when the number of firms is endogenously determined. Finally, these results are used to re-examine the relative profitability of collusion and merger in order to help understand the causes of the great merger wave.

TI The Impact of Anticipated Demand Movements on Collusive Behavior. **AU** Haltiwanger, John; Harrington, Joseph Jr.

PD March 1988. **TI** The Determination of Price and Output Quotas in a Heterogeneous Cartel. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 207; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 37. **PR** No Charge. **JE** 022, 026, 611, 514, 511. **KW** Collusion. Asymmetric Firms. Bargaining. Cost Functions. Nash Equilibrium.

AB A fundamental issue concerning collusive behavior is the determination of price and output quotas when firms have different cost functions. Previous investigations of this issue have been inadequate because of their failure to restrict the set of collusive outcomes to those implementable by firms; an issue originally raised by Bain forty years ago. Clearly, colluding firms would never choose a price and output quotas which they realized could not be implemented. The current study re-examines the determination of price and output quotas while restricting firms to outcomes which can be implemented by a self-enforcing agreement. The central finding of this study is that the optimal collusive price exceeds the price of a (low cost) monopolist. This result suggests that the welfare losses from collusion are considerably greater when firms are heterogeneous than have been found for when firms have identical cost functions.

TI The Impact of Cyclical Demand Movements on Collusive Behavior. **AU** Haltiwanger, John; Harrington, Joseph E. Jr.

PD October 1988. **TI** The Revelation of Information Through the Electoral Process: An Exploratory Analysis. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 217; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 42. **PR** No Charge. **JE** 025, 026. **KW** Elections. Information Revelation. Candidates. Speeches.

AB This paper re-formulates the standard Hotelling-Downs model of electoral competition by assuming the winning candidate is not committed to implementing the policies he announced in the pre-electoral stage. If elected, a candidate attempts to implement his most preferred policies, unconstrained by his campaign speeches. With this model we examine the incentives for candidates to convey truthful information about their positions on issues. Our main finding is that if a candidate cares about policy and if the electorate can influence post-election policy (perhaps through public opinion) then a candidate is induced to truthfully reveal his policy preferences to the voters through his pre-electoral announcements.

Hartwick, John M.

PD November 1988. **TI** Giffenness in Imports and Fluctuations in Import Prices for a Small Open Economy. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 731; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 23. **PR** $3.00 Canada; $3.50 United States and Foreign. **JE** 411, 431, 421. **KW** Small Open Economy. Giffen goods. Imports. Terms of Trade.

AB In a two good, two factor small open economy with neoclassical production functions, we investigate conditions for Giffenness of imports with respect to the price of the imported good. Of interest is the shape of the consumption-trade frontier (the locus of points chosen as world prices vary) under Giffenness. It is concave to the origin. We note the implications of this for the small open economy facing fluctuating terms of trade.

Hay, Joel W.

PD October 1988. **TI** Econometric Issues in Modeling the Costs of AIDS. **AA** Hoover Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-36; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 46. **PR** No Charge. **JE** 913. **KW** Acquired Immune Defficiency Syndrome. Proportional Hazards Model. Health Costs. Medical Costs.

AB The goals of Acquired Immune Defficiency Syndrome or HIV econometric modeling efforts are i) to evaluate or project the costs-of-illness to the individual and to society, and ii) to examine the costs and utilization of services provided to patients. Most of the standard theoretical and statistical approaches are not applicable because of the scarcity, incompleteness and nonrepresentative nature of available data. This paper discusses specific methodological approaches concerning AIDS and HIV epidemiology, medical cost estimation techniques, evaluation of the cost-effectiveness of social support programs and valuation of human life. The epidemiologic projection approach-a simplified "back calculation" method--suggests that the number of Americans infected with the AIDS virus in 1987-88 was likely to be between 500,000 and 800,000. This estimate is between two and three times lower than the United States Centers for Disease Control estimates. Methods for estimating both the direct and indirect costs of illness are described.

Heady, Christopher J.

TI Sustainable Development in the Sahel: Two Essays. **AU** Pearce, David W.; Markandya, Anil; Barrett, Scott; Heady, Christopher J.

Hell, Pavol

PD April 1988. **TI** Images of Rigid Digraphs. **AU** Hell, Pavol; Nesetril, Jaroslav. **AA** Hell: University of Burnaby. Nesetril: Charles University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88510-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 14. **PR** No Charge. **JE** 213. **KW** Finite Digraphs. Rigid Graphs. Quasiordered Sets.

AB We characterize those finite digraphs which are homomorphic images of rigid graphs. In the infinite case we obtain partial results only and the problem seems to be difficult. This is related on the one side to the theory of quasiordered sets and on the other side to universality of graphs of small height.

Helmes, K.

TI On Stochastic "Bang-Bang" Control for Linear Diffusions with Point Process Observations. **AU** Christopeit, N.; Helmes, K.

Helpman, Elhanan

PD September 1988. **TI** Voluntary Debt Reduction: Incentives and Welfare. **AA** Tel Aviv University. **SR** International Monetary Fund Working Paper: WP/88/84; International Monetary Fund, Washington, DC 20431. **PG** 24. **PR** No Charge. **JE** 443, 441. **KW** Public Debt. Investment. Tax Rates. Capital Mobility.

AB In an economy with a debt overhang, investment depends on expected tax rates. On the other hand, expected tax rates depend on the debt's face value. Therefore investment depends on the face value of debt. I show that this may lead to a positive or negative association between debt and investment depending on the degree of international capital mobility and attitudes toward risk. There may also exist multiple equilibria; with high and low investment levels. The paper explores the desirability of debt reduction in this environment. First, it characterizes circumstances in which debt reduction is desirable from the collective point of view of the creditors. Second, it formulates the forgiveness decision as a noncooperative game among creditors and explores the scope for debt reduction as an outcome of this game.

PD November 1988. **TI** Simple Analytics of Debt-Equity Swaps. **AA** Tel Aviv University. **SR** National Bureau of Economic Research Working Paper: 2771; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 432, 443, 441. **KW** Debt Crisis. Debt-Equity Swaps. International Debt. Debtor Nation.

AB Recent attempts to resolve the international debt crisis have lead some countries to engage in debt-equity swaps. The paper explores conditions under which such transactions are beneficial to the debtor as well as the creditors. It identifies a market failure that may prevent the emergence of mutually beneficial swaps and analyzes the effects of swaps on the investment level in the debtor country. The latter helps to evaluate the contribution of this policy to future difficulties with debt service payments.

TI Comparative Advantage and Long-Run Growth. **AU** Grossman, Gene; Helpman, Elhanan.

TI Comparative Advantage and Long-Run Growth. **AU** Grossman, Gene; Helpman, Elhanan.

Henderson, Dale W.

TI Nominal Interest Rate Pegging Under Alternative Expectations Hypotheses. **AU** Gagnon, Joseph E.; Henderson, Dale W.

TI Nominal Interest Rate Pegging Under Alternative Expectations Hypotheses. **AU** Gagnon, Joseph E.; Henderson, Dale W.

Hendricks, Kenneth

PD September 1988. **TI** Random Reservation Prices and Bidding Behavior in OCS Drainage Auctions. **AU** Hendricks, Kenneth; Porter, Robert; Spady, Richard H. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 51; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 35. **PR** No Charge. **JE** 022, 632, 723, 721. **KW** Auctions. Gas Extraction. Natural Resources. Energy. Crude Oil.

AB This paper examines bid distributions for federal drainage and development leases on the Outer Continental Shelf from 1959 to 1980. These are leases which are adjacent to tracts on which an oil or gas deposit has been discovered. We find that an auction model in which the reservation price is random, and neighbor firms are assumed to be better informed about the value of a lease than non-neighbor firms, can explain the properties of the distributions of the high neighbor and non-neighbor bids.

Henry, Claude

PD September 1988. **TI** The Impact of Discrimination on Contestability in a Duopoly with Vertical Differentiation. **AA** Universite de Lausanne and Ecole Polytechnique, Paris. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 8809; Departement d'econometrie et d'economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne / SWITZERLAND. **PG** 29. **PR** No Charge. **JE** 612, 611. **KW** Natural Monopoly. Competition. Vertical Differentiation. Discrimination. Contestable Markets.

AB That a monopoly is contestable means that the mere threat of entry prevents it from charging "monopoly prices". Two parameters, flexibility and intensity of post-entry competition, are key determinants of the contestability of a monopoly. In this paper we consider flexibility in price setting as an endogenous variable, in the sense that it can be limited only in so far as the incumbent monopoly finds such a limitation to be in its best interest. We have then three possible market configurations: no entry with or without self-imposed restrictions on behalf of the monopoly; or entry accommodated by the incumbent firm which then is no longer a monopoly, but an actual competitor in a vertically differentiated duopoly. We investigate the relationship between the market configuration that obtains and the intensity of post-entry competition.

Hermalin, Benjamin E.

PD July 1988. **TI** The Determinants of Board Composition. **AU** Hermalin, Benjamin E.; Weisbach, Michael S. **AA** Hermalin: University of California, Berkeley. Weisbach: University of Rochester. **SR** University of Rochester Managerial Economics Research Center Working Paper: MERC 87-09; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PR** No Charge. **JE** 511, 512, 514. **KW** Board of Directors. Poisson Models. Managers. CEOs.

AB We examine empirically the factors that lead firms to change the composition of their board of directors. We hypothesize that the CEO succession process and firm performance will affect board composition. Our findings are consistent with both hypotheses: When their CEO nears retirement, firms tend to add inside directors (who may be possible candidates to be the next CEO). Just after a CEO change, inside directors with short tenures appear more likely to leave the board (they, perhaps, being the losing candidates). We also find that inside directors are more likely to leave the board and outside directors more likely to join after a firm performs poorly and when a firm exits industries.

Hildenbrand, Werner

PD November 1988. **TI** Facts and Ideas in Microeconomic Theory. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-206; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 31. **PR** No Charge. **JE** 022, 021. **KW** Market Demand. Slutzky Substitution. Income Distribution. Demand Theory.

AB Thus, if one wants to use demand theory to make good guesses - then the demand system must have certain general, yet fundamental properties. Without these properties one can, of course, still derive immense satisfaction from contemplating very general relationships, but if one wants to use demand theory to make a comparative static analysis then we must require certain strong properties of the demand system; one of these properties, which I consider fundamental and indispensable, I like to call the Law of Demand. The concept of "demand" as it is used in economic theory is quite abstract and in any case, very hypothetical (counterfactual). Marshall called it the demand schedule, that is to say, demand is conceived of as a function which gives for every vector of prices the vector of commodities which would be demanded at these prices by the entire population. Demand means a list of plans, not actual transactions.

Hobson, Michael

PD June 1988. **TI** The Demand for Local Telephone Service Under Optimal Local Measured Service. **AU** Hobson, Michael; Spady, Richard. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 50; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 22. **PR** No Charge. **JE** 635, 921. **KW** Telephone Service. Telephones. Communication. Price Discrimination.

AB When consumers are offered a choice between flat rate local telephone service and local measured service, those choosing LMS tend to place fewer calls than those choosing the flat rate as a result of both a suppression effect and a selection effect. This paper outlines a method for estimating the magnitude of these effects using data that are reasonably available. We apply out methods to a sample of single person households where we find the selection effect to be three times the suppression effect for a representative customer.

Holderness, Clifford G.

PD March 1988. **TI** What Constrains Managers Who Own Large Blocks of Stock. **AU** Holderness, Clifford G.; Sheehan, Dennis P. **AA** Holderness: University of Rochester. Sheehan: Purdue University. **SR** University of Rochester Managerial Economics Research Center Working Paper:

MERC 88-07; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PR** No Charge. **JE** 511, 512, 514. **KW** Monitoring. Constraints. Managers. Shareholders.

AB Corporate managers who own a majority stock interest in their company or who represent another firm owning such an interest appear to be less constrained than managers of diffusely held firms by such organizational mechanisms as boards of directors and monitoring by bondholders and auditors. Similarly, owner-managers seem to have less need to consider the effects on their firm's reputation when deciding how to act. Legal considerations, however, do appear to constrain managerial majority shareholders, both in their day-to-day management and when they extinguish the ownership interest of minority shareholders.

Holmlund, Bertil

TI The Determination of Wages, Employment, and Work Hours in an Economy with Centralized Wage-Setting: Sweden, 1950-83. **AU** Pencavel, John; Holmlund, Bertil.

Holtz, Eakin Douglas

PD November 1988. **TI** Intertemporal Analysis of State and Local Government Spending: Theory and Tests. **AU** Holtz, Eakin Douglas; Rosen, Harvey S. **AA** Holtz-Eakin: Columbia University. Rosen: Princeton University. **SR** Columbia Department of Economics Working Paper: 411; Department of Economics, Columbia University, New York, NY 10027. **PG** 20. **PR** $5.00. **JE** 324, 321. **KW** Government Spending. State Governments. Intertemporal Substitution. Dynamic Models. Fiscal Policy.

AB Both theoretical and empirical analyses of state and local government behavior generally assume that all spending during a given period depends only on resources available in that period. This absence of attention to the dynamics of aggregate state and local spending is particularly striking given its role in determining aggregate demand -- state and local purchases of goods and services were $543.2 billion in 1987, about 12 per cent of Gross National Product, and $100 billion more than that year's non-residential investment expenditures.

PD November 1988. **TI** Vote Maximization and the Provision of Local Government Services. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 410; Department of Economics, Columbia University, New York, NY 10027. **PG** 32. **PR** $5.00. **JE** 324, 025, 321. **KW** Fiscal Policy. Local Governments. Government Policy. Median Voter.

AB Econometric analysis of the fiscal policies of local governments depends upon the assumed relationship between the individual demands of residents in each community and the observed activities of their governments. Unfortunately, no consensus exists on the correct specification of the link between individual demands and government policies. Due primarily to its tractability, the most common assumption in the empirical literature is that policies are determined in accordance with the median voter model. In these studies, variations in government expenditure, taxation, etc. are attributed to changes in the resources and prices faced by a single individual: the median voter.

PD January 1989. **TI** The "Rationality" of Municipal Capital Spending: Evidence from New Jersey. **AU** Holtz, Eakin Douglas; Rosen, Harvey. **AA** Holtz-Eakin: Columbia University.
Rosen: Princeton University. **SR** Columbia Department of Economics Working Paper: 419; Department of Economics, Columbia University, New York, NY 10027. **PG** 29. **PR** $5.00. **JE** 324, 321. **KW** Capital Spending. Investment. State Governments. Government Spending.

AB In 1985, capital spending by subfederal governments in the United States amounted to about $80 billion. This capital served as an input to the production of education, roads, bridges, and other items that are of vital national concern. Compared to capital spending by the private sector, there has been relatively little analysis of the process that determines the flow of state and local investment. The existing literature embodies two conflicting views regarding the determinants of state and local capital spending. Some analysts interpret movements in capital spending as rational reactions to changing economic and demographic conditions. Others attribute changes to myopic decision making by politically motivated local officials. In this paper we utilize panel data on capital spending by a sample of New Jersey municipalities during the early 1980s in order to investigate which hypothesis is more consistent with actual spending behavior.

Holzer, Harry J.

PD December 1988. **TI** The Determinants of Employee Productivity and Earnings: Some New Evidence. **AA** Michigan State University. **SR** National Bureau of Economic Research Working Paper: 2782; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 825, 824, 821. **KW** Employment. Wages. Productivity. Job Tenure.

AB This paper uses data from a nationwide sample of firms on employee wages and characteristics to reexamine the determinants of employee productivity and earnings. The data include several measures of job experience, training, and both worker and firm characteristics as well as subjective employer productivity ratings and earnings of workers. Given observations on the same individual at different points in time, we can consider both levels and changes in earnings and productivity, with various firm- and job-specific effects eliminated from the latter.

Holzmann, Robert

PD September 1988. **TI** Pension Policies in the OECD Countries: Background and Trends. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/85; International Monetary Fund, Washington, DC 20431. **PG** 24. **PR** No Charge. **JE** 122, 915, 918, 113. **KW** Pensions. Retirement. Social Security. Developed Countries.

AB Concerns about restructuring old-age income provisions and reforming public pension schemes are an OECD-wide phenomenon. This paper highlights first the background of the reform debate. Despite the divergences in the structure of public pension schemes, the main pressures for reform are strikingly similar across the OECD area and thus can be discussed under three broad headings: budgetary, economic, and social. The reform trends are presented in the second part of the paper and highlight the central features of the current reform process: reform, not revolution; extension of basic provisions; strengthening social adequacy and individual equity; and redistributing the sources of old-age income.

Honkapohja, Seppo

TI On the Robustness of Bubbles in Linear RE Models. **AU** Evans, George W.; Honkapohja, Seppo.

Howell, David R.

PD August 1988. **TI** Changes in the Skill Requirements of the U.S. Labor Force, 1960-85. **AU** Howell, David R.; Wolff, Edward N. **AA** New York University. **SR** New York University Economic Research Reports: 88-26; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 48. **PR** No Charge. **JE** 811, 812, 813. **KW** Skill Levels. Labor Force. Labor Skills. Service Sector.

AB We use several job-based indices of skill requirements for detailed occupations to develop three measures of labor skills (cognitive, interactive, and motor) at the industry level in order to explore trends in the skill composition of work for the 1960-85 period. Our results shed light on several important issues. First, there is no evidence of a "deskilling" of the United States labor force. Second, the higher-skill industries, most notably in the service sector, grew faster in terms of employment over the 1960-85 period. Third, we find that skill inequality according to our direct skill indices declined somewhat in the United States between 1960 and 1985. Fourth, the change in overall skill inequality has taken the form of an increase in the share of the upper skill occupations and a corresponding decline in the lower skill ones.

Hsiao, Cheng

TI A Combined Structural and Flexible Functional Approach for Modeling Energy Substitution. **AU** Mountain, Dean; Hsiao, Cheng.

Huang, Weihong

PD November 1988. **TI** Measure of Information Gain. **AA** University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8824; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 36 pages. **PR** No Charge. **JE** 026, 213, 022. **KW** Information Theory. Uncertainty. Risk.

AB The information concept and Information Theory developed by Shannon and Wiener have limited practical use in real-life informational problems of economic activities. In this essay, we study the measures of information from the viewpoint of an economist. A measure of information gain is derived axiomatically and its relation to Shannon's entropy is discussed. In contrast to the general interpretation as a measure of uncertainty, Shannon's entropy is actually a "risk" concept in the economic life, while Kullback's cross entropy turns out to be an "uncertainty" equivalence. We also define the measures of risk, uncertainty and stock of information.

TI Bulls, Bears and Market Sheep. **AU** Day, Richard; Huang, Weihong.

Hubbard, R. Glenn

TI Financial Factors in Business Fluctuations. **AU** Gertler, Mark; Hubbard, R. Glenn.

Huber, Alan

TI Government Saving, Capital Formation and Wealth in the United States, 1947-1985. **AU** Boskin, Michael; Robinson, Marc S.; Huber, Alan.

Hulten, Charles R.

PD June 1988. **TI** A Haig-Simons-Tiebout Comprehensive Income Tax. **AU** Hulten, Charles R.; Schwab, Robert M. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper: 88-41; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 32. **PR** No Charge. **JE** 324, 931, 932. **KW** Public Capital. Tax Reform. Income Taxes. Property Right. Local Government.

AB In this paper, we show that the Tiebout model has important implications for the ownership of public capital. While it is true that city governments hold legal title to the streets, schools, parks, etc., that they operate, the Tiebout model implies that the individual residents have implicit "equity" in the public capital stock. This equity in the public streets, etc., can be bought and sold through the sale of housing in the community and thus constitutes a valid property right in the public capital. Furthermore, there is a return on this equity equal to the reduction in future taxes. This result raises an important issue in the design of a Haig-Simons comprehensive income tax. Under the Haig-Simons definition of income, all consumption and changes in net worth are included in the tax base. Since there is an implicit return to public capital which accrues to individuals in a Tiebout community, the Haig-Simons principle requires that this return be taxed. This result, in turn, has important implications for the study of tax neutrality and the design of tax reform.

Humphrey, David

TI Market Failure and Resource Use: Economic Incentives to Use Different Payment Instruments. **AU** Berger, Allen N.; Humphrey, David.

Hurd, Michael D.

PD December 1988. **TI** The Joint Retirement Decision of Husbands and Wives. **AA** SUNY Stony Brook. **SR** National Bureau of Economic Research Working Paper: 2803; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 921, 918. **KW** Retirement. Families. Leisure. Aging.

AB The objective of the paper is to find empirically whether husbands and wives tend to retire at the same time, and to give an explanation of the findings. Similarity of retirement dates could be caused by similarity of tastes (assortative mating), by economic variables, or by the complimentarity of leisure. Each explanation would have different implications for the response of retirement to policy changes. Both simple data analysis and economic models of the age of retirement point to coordination of retirement dates: husbands and wives tend to retire at the same time. According to the results, very little of the coordination is due to economic variables, and simple cross-tabulations rule out assortative mating as an important explanation. This leaves complimentarity of leisure. Because of data limitations, this conclusion is, however, mainly qualitative.

Im, Jong

TI Conditional Heteroskedasticity in the Market. **AU** Diebold, Francis X.; Im, Jong; Lee, C. Jevons.

Irvine, F. Owen

TI Determinants of Intended Bequests. **AU** Menchik, Paul L.; Irvine, F. Owen; Jianakoplos, Nancy A.

Isard, Peter

TI Monetary Policy Strategies. **AU** Flood, Robert; Isard, Peter.

TI Monetary Policy Strategies. **AU** Flood, Robert; Isard, Peter.

Jensen, Michael C.

PD March 1988. **TI** The Distribution of Power Among Corporate Managers, Shareholders, and Directors. **AU** Jensen, Michael C.; Warner, Jerold B. **AA** Jensen: University of Rochester and Harvard Business School. Warner: University of Rochester. **SR** University of Rochester Managerial Economics Research Center Working Paper: MERC 88-06; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 32. **PR** 50U/copy. **JE** 511, 512, 514. **KW** Managers. Shareholders. Directors. Voting. Takeovers.

AB This article surveys the 17 papers in this special issue of the Journal of Financial Economics, and related work. The major findings are (1) patterns of stock ownership by insiders and outsiders can influence managerial behavior, corporate performance, and stockholder voting in election contests, (2) corporate leverage, inside stock ownership by managers and the control market are interrelated, (3) departures from one share/one vote affect firm value and efficiency, (4) takeover resistance through defensive restructurings or poison pill provisions is associated with declines in share price, and (5) top management turnover is inversely related to share price performance.

Jianakoplos, Nancy A.

TI Determinants of Intended Bequests. **AU** Menchik, Paul L.; Irvine, F. Owen; Jianakoplos, Nancy A.

Jonathan, R. Kesselman

PD February 1988. **TI** Income Tax Evasion in General Equilibrium. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-03; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 50. **PR** $.20 per page Canadian to other than educational institutions. **JE** 323, 321, 021, 024. **KW** Income Taxes. Tax Evasion. General Equilibrium. Tax Policy.

AB This paper develops a model for analyzing income tax evasion within a general equilibrium framework. Key elements of the model are imperfectly substitutable outputs from the compliant and evading sectors and workers with heterogeneous evasion costs. The model allows for biased public expenditures, sectoral productivity effects, a wide range of behavioral responses, and both legitimate and criminal tax avoidance and tax evasion activities. Qualitative and quantitative assessments are undertaken for the effects of tax rate changes on evasion activity, relative output prices, and tax revenues. This approach yields many potential extensions and important implications for taxation policy.

Jones, Derek C.

TI Can Employee Owned Firms Survive. **AU** Estrin, Saul; Jones, Derek C.

Jones, Stephen R. G.

PD April 1988. **TI** Reservation Wages and the Cost of Unemployment. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-13; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 53. **PR** $.20 per page Canadian to other than educational institutions. **JE** 824, 821, 813. **KW** Reservation Wage. Unemployment. Unemployment Benefit. Employment.

AB The paper studies direct evidence on reservation wages collected in Great Britain in 1982 to assess (i) whether such asking prices are "high" and (ii) whether variations in these reservation wages are related to differences in measures of the subjective and objective costs of unemployment. A majority overall (and various subgroups) reports reservation wages no higher than own past wages adjusted for earnings growth, but there is nonetheless considerable dispersion in the ratio of reservation to past wages. Reservation wages are somewhat related to measures of the differential cost of unemployment, most clearly for men, although the independent role of benefits is often imprecisely measured. However, exactly which of these costs matter differs significantly according to whether the separation from last employment was voluntary or involuntary.

PD May 1988. **TI** Job Search Methods, Intensity and Effects. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-14; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 31. **PR** $.20 per page Canadian to other than educational institutions. **JE** 824, 821. **KW** Job Search. Search Theory. Employment. Unemployment. Search Intensity.

AB The paper is an empirical examination of job search methods and intensity based on a large data set collected in Great Britain in September 1982. We document the interdependent choices of a reservation wage, search types and search intensity and we model some determinants of these choices. There are three main findings. First, the level of unemployment benefits is found to exert a very weak, independent influence on the choice of intensity. Second, except for the long term unemployed, there are surprisingly small differences in search type and intensity across different groups of the unemployed. Third, we find no evidence of increasing returns in the search technology, either in the aggregate or disaggregated to five different search types.

PD August 1988. **TI** Inventories, Strike Funds and Bargaining Outcomes. **AU** Jones, Stephen R. G.; McKenna, C. J. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-17; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 58. **PR** $.20 per page Canadian to other than educational institutions. **JE** 832, 022. **KW** Collective Bargaining. Inventories. Full Information. Union Contract.

AB The paper studies the influence of strike pay and inventories upon the outcomes reached in a union-firm noncooperative bargaining model. With full information in a Rubinstein framework, each party to the bargain has outside options at each stage that are endogenous in that they can be drawn upon at whatever rate they choose. Union members can receive strike pay during the course of a disagreement and, similarly, firms can draw upon inventory. Characterization is given of the optimal potential use of these options, in particular whether there would optimally be front-loading -- a tendency for use early on in the course of a disagreement -- or postponement. The unique perfect equilibrium that results demonstrates the effect of such reserves on bargained outcomes.

Jovanovic, Boyan

PD August 1988. **TI** An Estimate of a Sectoral Model of Labor Mobility. **AU** Jovanovic, Boyan; Moffitt, Robert. **AA** Jovanovic: New York University. Moffitt: Brown University. **SR** New York University Economic Research Reports: 88-32; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 35. **PR** No Charge. **JE** 823, 824. **KW** Labor Mobility. Migration. Employment. Labor Market.

AB This paper develops a model of sectoral labor mobility, and tests its main implications. The model nests two distinct hypotheses on the origin of mobility: (a) sectoral shocks, and (b) worker-employer mismatch. We estimate the relative importance of each hypothesis, and find that the bulk of labor mobility is caused by mismatch rather than by sectoral shift.

PD September 1988. **TI** Competitive Diffusion. **AU** Jovanovic, Boyan; MacDonald, Glenn M. **AA** Jovanovic: New York University. MacDonald: University of Western Ontario, University of Rochester and University of Chicago. **SR** New York University Economic Research Reports: 88-29; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, NY 10003. **PG** 62. **PR** No Charge. **JE** 621, 631. **KW** Innovation. Diffusion. Technology.

AB In this paper both the production of new ideas -- Invention, Innovation -- and the activities that cause their diffusion -- Imitation -are objects of choice and chosen optimally. These activities differ over time and across firms at a point in time. When all firms have access to the same knowledge, innovation is the prime source of new ideas, but when knowledge is diverse across firms, imitation plays an important role. Innovation generates heterogeneity in firm knowledge and behavior. Imitation can exaggerate heterogeneity, but eventually eliminates it. Complex Schumpeterian-type behavior may arise: In one scenario, the heterogeneity spawned by innovative activities inspires imitation which eventually produces homogeneity, causing substitution back towards innovation, and a consequent growth in heterogeneity, and so on. We apply the model to data on the diffusion of diesel engines, and of mechanized leading techniques in coal mining.

TI Asymmetric Information and the Excess Volatility of Stock Prices. **AU** Eden, Benjamin; Jovanovic, Boyan.

Joyce, Theodore

TI Demographic Analysis of Birthweight-Specific Neonatal Mortality. **AU** Corman, Hope; Grossman, Michael; Joyce, Theodore.

Kalaba, R.

PD August 1988. **TI** An Organizing Principle for Dynamic Estimation. **AU** Kalaba, R.; Tesfatsion, L. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8818; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 44 pages. **PR** No Charge. **JE** 211. **KW** State Estimation. Optimization. Dynamic Programming. Filtering. Estimation Algorithms. Misspecification. Specification Errors.

AB This paper develops a general multicriteria framework for the sequential estimation of process states. Three well-known state estimation algorithms (the Viterbi, Larson-Peschon, and Kalman filters) are derived as monocriterion specializations. The multicriteria estimation framework is used to clarify, and to characterize formally, both Bayesian and classical statistical procedures for treating potential model misspecification. A recently developed bicriteria specialization ("flexible least cost"), explicitly designed to take specification errors into account, is also reviewed. The latter application suggests how the multicriteria framework might be used to construct estimation algorithms capable of handling disparate sources of information coherently and systematically, without forced scalarization.

Kaminsky, Graciela Laura

TI Nominal Exchange Rate Regimes and the Real Exchange Rate Evidence from the U.S. and Britain: 1885-1986. **AU** Grilli, Vittorio; Kaminsky, Graciela.

PD February 1989. **TI** The Peso Problem and the Behavior of the Exchange Rate the Dollar-Pound Exchange Rate: 1976-1987. **AA** University of California, San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 89-5; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PR** No Charge. **JE** 431, 132, 131, 311. **KW** Peso Problem. Switching Regimes. Exchange Rate. Bayesian Updating. Reputation. Credibility. Fixed Exchange Rates.

AB In this paper we estimate a model for the exchange rate that allows for changes in regimes and rational learning of investors. Two different models are estimated. In the first one it is assumed that investors only used past observations of the exchange rate to forecast the future path of this variable. In the second one, investors are also assumed to use Federal Reserve Officials' announcements about current and future monetary policy published in the Wall Street Journal to classify the observations into different regimes. As the announcements only provide imperfect information about the exchange rate regime, we specify the model so as to take into account this imperfect regime classification information. It is found that the exchange rate depreciation can be best described by an uncorrelated shock around a drifting mean that was negative in 1981-1984 and positive in the 1970s and late 1980s. The econometric evidence also provides support to the peso problem hypothesis.

Kandel, Eugene

PD January 1989. **TI** Peer Pressure and Partnership. **AU** Kandel, Eugene; Lazear, Edward P. **AA** Kandel: University of Chicago. Lazear: Hoover Institution and University of Chicago. **SR** Stanford Hoover Institute Working Paper in Economics: E-89-5; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 38. **PR** No Charge. **JE** 825, 833, 821, 514, 511. **KW** Free Rider Problem. Partnerships. Profit Sharing. Firm Size.

AB Partnerships and profit sharing plans are often claimed to motivate workers by giving them a share of the pie. But in organizations of any significant size, the "free-rider" effects would seem to choke off any motivational forces of profit-sharing. The common existence of partnerships and profit sharing plans results from peer pressure, which exerts a positive effect on worker effort. Thus, an increase in firm size may bring about higher effort per worker since there are more individuals who can discipline their co-workers. This force affects optimal firm size. It also implies that partnerships are more likely among homogeneous individuals and that profit sharing is more common among high salary workers.

Karni, Edi

PD September 1987. **TI** Ascending Bid Auctions with Behaviorally Consistent Bidders. **AU** Karni, Edi; Safra, Zvi. **AA** Safra: Tel Aviv University. Karni: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 199; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 22. **PR** No Charge. **JE** 022, 026. **KW** Auction Theory. Expected Utility Theory. Dynamic Consistency. Nash Equilibrium.

AB See addtional entry under this author and title.

PD January 1988. **TI** Ascending Bid Auctions with Behaviorally Consistent Bidders. **AU** Karni, Edi; Safra, Zvi. **AA** Safra: Tel Aviv University. Karni: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 202; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 20. **PR** No Charge. **JE** 022, 026. **KW** English Auctions. Bid Auctions. Behavioral Consistency. Dynamic Models. Expected Utility Theory. Nash Equilibrium.

AB In this paper we analyze a game induced by independent private values ascending bid auctions assuming that the bidders preferences are nonlinear in the probabilities. We show the conditions for existence of a Bayesian-Nash equilibrium and characterize the equilibrium strategies.

PD January 1988. **TI** Limit Standards of Behavior. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 203; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 7. **PR** No Charge. **JE** 025, 022. **KW** Social Situations. Behavior. Conservatives.

AB Within the theory of social situations this paper develops the concept of limit standard of behavior. For conservative players it is shown that limit standards of behavior are conservative stable standards of behavior. For optimistic players the limit standard of behavior is optimistic stable standards of behavior.

PD February 1988. **TI** Behaviorally Consistent Optimal Stopping Rules. **AU** Karni, Edi; Safra, Zvi. **AA** Safra: Tel Aviv University. Karni: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 206; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 28. **PR** No Charge. **JE** 022, 026, 213. **KW** Behavioral Consistency. Dynamic Consistency. Search Theory. Expected Utility. Stopping Rules. Preferences.

AB This paper analyzes the optimal stopping rules when the decision-maker's preferences are nonlinear in the probabilities. Assuming behavioral consistency we establish the existence and characterize the nature of the optimal stopping rules for search models without recall from known distribution with and without bound on the number of observations allowed.

PD April 1988. **TI** Rank-Dependent Probabilities. **AU** Karni, Edi; Safra, Zvi. **AA** Safra: University of Pennsylvania. Karni: Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 208; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 28. **PR** No Charge. **JE** 026, 022. **KW** Expected Utility Theory. Preferences. Risk Aversion.

AB Within the framework of the theory of expected utility with rank dependent probabilities we present an hypothesis concerning the shape of the probability transformation function. We show that this hypothesis is consistent with a simultaneous participation in actuarially unfair lotteries and insurance, with aversion to fair, symmetric, risks, with the "preference reversals" phenomenon, and with some other experimental evidence concerning choice under risk. The main novelty of our hypothesis is that it is consistent with: (a) the finding that, in the "preference reversals" experiments, the frequency of reversals is higher when the P-bet is preferred to the corresponding $-bet than when the $-bet is preferred over the corresponding P-bet and, (b) the finding that the $-bet, the more risky prospect, is chosen more frequently than the corresponding P-bet.

PD October 1988. **TI** Fixed Preferences and Changing Tastes (The Economics of Fashion). **AU** Karni, Edi; Schmeidler, David. **AA** Karni: Johns Hopkins University. Schmeidler: Tel-Aviv University and Ohio State. **SR** Johns Hopkins Department of Economics Working Paper: 216; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 31. **PR** No Charge. **JE** 921, 022, 026. **KW** Fashion. Tastes. Commodities. Externalities. Consumption. Preferences.

AB Using a game theoretic approach, this paper models the phenomenon of fashion. The main idea is that goods satisfy social as well as the material needs of the consumers, and that the capacity of a commodity to satisfy social needs depends on its distribution across consumers. Formally, the notion of extended commodities is defined to include this information as part of the characterization of commodities. Then, taking the preferences on the extended commodity space as given it is shown that demand variations that are reminiscent of the pattern generated by fashion may be obtained as an equilibrium outcome.

PD December 1988. **TI** Technological Progress and Income Inequality. **AU** Karni, Edi; Zilcha, Itzhak. **AA** Karni: Johns Hopkins University. Zilcha: Tel-Aviv University. **SR** Johns Hopkins Department of Economics Working Paper: 219; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 22. **PR** No Charge. **JE** 621, 024, 111, 023. **KW** Income Inequality. Technological Change. Overlapping Generations. Competitive Equilibrium. Technology.

AB This paper studies the effect of technological progress on the distribution of income specifically, taking the stochastic process generating income inequality as given, we trace the effects on this inequality following the introduction of Hicks--neutral, Harrod-neutral and Solow--neutral technological innovations. The analysis is not confined to steady-states, rather it involves the effect in every period following the introduction of the new technology. The analytical framework is competitive equilibrium in an overlapping generations economy.

Kehoe, Patrick J.

TI On the Denomination of Government Debt: A Critique of the Portfolio Balance Approach. **AU** Backus, David K.; Kehoe, Patrick J.

Keil, Manfred W.

PD August 1988. **TI** The Canadian Bust of '82. **AU** Keil, Manfred W.; Symons, James S. V. **AA** Keil: Northeastern University. Symons: Centre for Labour Economics and University College London. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 323; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 50. **PR** No Charge. **JE** 122, 133, 111, 822. **KW** Unemployment. Canada. Unemployment Insurance. Monetary Policy.

AB A small model of the Canadian economy is developed, emphasizing both the supply side, and the influence of monetary factors. The results explain the trend deterioration in Canadian unemployment vis-a-vis the United States as due to the reform of the Canadian unemployment insurance scheme in 1971, the effects of which were initially masked by the resource boom. The severe recession of 1982 is blamed on tight monetary policy by the Bank of Canada.

Kelejian, Harry

PD December 1987. **TI** A Note on Specifications Used in Random Effects Models. **AU** Kelejian, Harry; Gatto, Joseph; Stephan, Scott. **AA** Kelejian: University of Maryland. Gatto, Stephan: AT&T Communications. **SR** University of Maryland Department of Economics Working Paper Series: 88-13; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 11. **PR** No Charge. **JE** 211, 212. **KW** Error Component. Random Effects.

AB The purpose of this paper is twofold. First, we show that certain error component specifications assumed in the literature are either untenable or "peculiar" in that they imply that the random effects depend upon the sizes of the panel data. Such specifications have been used in a wide variety of cases which include both large and small sample analyses. Second, we suggest an error component specification which is reasonably general and does not suffer from these shortcomings. Unlike for most cases in the literature, our specifications allow for both stochastic and nonstochastic regressors. Because of this, certain points in the literature are clarified, and a formal framework for developing corresponding tests of hypotheses is established.

Kennan, John

PD December 1988. **TI** Strategic Bargaining Models and Interpretation of Strike Data. **AU** Kennan, John; Wilson, Robert. **AA** Kennan: University of Iowa. Wilson: Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-47; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 81. **PR** No Charge. **JE** 026, 833. **KW** Bargaining. Strikes. Private Information. Price Discrimination. Signalling Models.

AB Several game-theoretic models of bargaining are characterized in terms of their predictions about the incidence, mean duration, and settlement rates of strikes and the terms of wage settlements. These predictions are compared with the general features observed in empirical studies. Conclusions are drawn about the types of models capable of generating these features, and about the conformity of the models to the evidence. Attrition models have the right properties to fit the Canadian data, whereas screening models based on price discriminating tactics appear to fit the United States data. The Coase property of screening models is offered as a possible explanation of procyclic incidence and settlement rates. Signaling models imply settlement rates too small to fit either set of data. Methods are described for computing the numerical examples used to illustrate the models.

Kennedy, Peter W.

PD November 1988. **TI** The Market Provision of Club Goods. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 732; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 35. **PR** $3.00 Canada and United States; $3.50 Foreign. **JE** 022, 024, 611. **KW** Market Provision. Efficiency. Technology. Economies of Scale.

AB Existing analyses of the efficiency of the market in providing club goods have failed to fully recognize the dependence of their results on the nature of the technology assumed. In this paper, optimality conditions for club good provision, membership and visitation are determined for a technology which allows for the possibility of both "internal" and "external" economies of scale, notions which we formally define. A general model of market provision is constructed which can accomodate a range of market structures as special cases. The efficiency of market provision is then assessed under perfect competition, oligopoly and natural monopoly. In deriving results for the case of natural monopoly a distinction is made between "internal" and "external" natural monopoly corresponding to the notions of internal and external economies of scale. The efficiency of the market equilibrium is assessed under various assumptions regarding the contestability of the market.

Kesselman, Jonathan R.

PD June 1988. **TI** Evasion Under a Mixed Tax Regime. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-11; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 32. **PR** $.20 per page Canadian to other than educational institutions. **JE** 323, 921, 916, 321. **KW** Indirect Taxes. Tax Evasion. Income Distribution. General Equilibrium. Income Taxes.

AB This paper offers an economic assessment of claims that shifting toward greater indirect taxes will reduce the extent of evasion and thereby improve the distribution of real net incomes. Practical considerations suggest that industry sectors which evade income taxes will also be strongly inclined to evade indirect taxes on their output. A general equilibrium analysis finds that changing the tax mix will have little or none of the claimed anti-evasion effects. Increased indirect taxes on evaders' consumption purchases will be shifted onto suppliers in the complaint sector. Evaders will end up evading less income taxes but evading more indirect taxes.

Kessides, Ioannis N.

PD April 1988. **TI** Internal vs. External Market Conditions and Firm Profitability: An Exploratory Model. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-27;

University of Maryland, Department of Economics, College Park, MD 20742. **PG** 25. **PR** No Charge. **JE** 531, 611, 616. **KW** Oligopoly. Advertising. Market Shares. Entry.

AB This paper develops a model of oligopoly which identifies the effects of internal market conditions (degree of actual competition among the established sellers in the market) and external conditions (potential competition from outside firms) on firm and market performance. The model generalizes those of Spence and Dixit-Stiglitz by allowing non-symmetric monopolistic competitors to advertise and by considering potential entry with products that are identical to pre-existing ones, as well as with new variants. The reduced form of the model relates market shares, profitability, and product variety to a host of firm-specific and industry-specific variables.

PD April 1988. **TI** Market Concentration and Sunk Costs. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-28; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 13. **PR** No Charge. **JE** 611, 511, 514, 616. **KW** Industry Structure. Contestable Markets. Market Shares. Economies of Scale. Technology.

AB This paper seeks to complement the technological explanation of concentration by assessing the influence of variables which the theory of contestable markets suggests are pertinent in the determination of industry structure. Thus, while most previous studies focus on technical economies of scale as the primary determinant of concentration, this study departs from mainstream trends by shifting the emphasis on the irrecoverable costs of entry. The results of the paper establish a significant and quantitatively important link between sunk costs and market concentration.

PD November 1988. **TI** Market Structure and Sunk Costs: An Empirical Test of the Contestability Hypothesis. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-50; Department of Economics, University of Maryland College Park, MD 20742. **PG** 29. **PR** No Charge. **JE** 611, 022. **KW** Market Structure. Sunk Costs. Contestable Markets.

AB This paper focuses on the efficiency attributes of long run equilibria in perfectly contestable markets and the structural implications -- for the size distribution of firms and concentration -- of deviations from the conditions of perfect contestability. Our results lend support to the hypothesis that the structure of markets depends continuously on the degree to which they exhibit imperfect contestability. The evidence presented confirms the conjectured role of contestability in rendering any inefficient organization of the industry unsustainable and hence in tightening the distribution of firms around the optimum.

Khan, M. Ali

PD August 1988. **TI** On a Reformulation of Cournot-Nash Equilibria. **AU** Khan, M. Ali; Sun, Ye Neng. **AA** Khan: Johns Hopkins University. Sun: Department of Mathematics, University of Illinois. **SR** Johns Hopkins Department of Economics Working Paper: 215; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 28. **PR** No Charge. **JE** 022, 213. **KW** Economic Agents. Externalities. Nash Equilibrium. Topology.

AB We present variations on a theme of Mas-Colell and report results on the existence of Cournot-Nash equilibrium distributions in which individual actions and the payoffs are represented by relations that are not necessarily complete, or transitive.

PD December 1988. **TI** On Cournot-Nash Equilibrium Distributions for Games with a Non-Metrizable Action Space and Upper Semi-Continuous Payoffs. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 218; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 37. **PR** No Charge. **JE** 026, 213. **KW** Nash Equilibrium. Compact Space. Radon Measure. Topology.

AB We report results on the existence of a Cournot-Nash equilibrium distribution for games in which the action space is not necessarily metrizable and separable and the pay-off functions are not necessarily continuous. Our work relies on the theory of Radon measures as developed by Schwartz-Topsoe, and on the epi-topology as developed by Dolecki-Salinetti-Wets.

Kiguel, Miguel

TI Output, Credit and Inflation in a Structuralist Model. **AU** Betancourt, Roger; Kiguel, Miguel.

TI Neoconservative Economic Experiments in the Southern Cone: A Review Essay. **AU** Betancourt, Roger; Kiguel, Miguel.

Kilgour, Marc D.

TI Optimal Cheating and Inspection Strategies Under INF. **AU** Brams, Steven J.; Davis, Morton D.; Kilgour, Marc D.

Kim, Chang Jin

TI The Time-Varying-Parameter Model as an Alternative to ARCH for Modeling Changing Conditional Variance: The Case of Lucas Hypothesis. **AU** Nelson, Charles; Kim, Chang Jin.

Kim, In Joon

PD September 1988. **TI** The Valuation of Corporate Fixed Income Securities. **AU** Kim, In Joon; Ramaswamy, Krishna; Sundaresan, Suresh. **AA** Kim: New York University. Ramaswamy: University of Pennsylvania. Sundaresan: Columbia University. **SR** New York University Salomon Brothers Center Working Paper: 491; 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** 25. **PR** No Charge. **JE** 313, 311, 522. **KW** Contingent Claims. Corporate Bonds. Default Premium.

AB We develop contingent claims valuation models for corporate bonds that are capable of generating default premiums consistent with the levels observed in practice. We incorporate several important features in the valuation and focus on the default risk of coupons in the presence of dividends and interest rate uncertainty. Default premiums are shown to be sensitive to interest rate expectations but not to the volatility of the interest rates. Interaction between call provision and default risk in determining default premiums is explicitly analyzed to show that the call provision has a differential effect on Treasury issues relative to corporate issues.

Kim, Myung Jig

PD December 1988. **TI** Mean Reversion in Stock Prices. A Reappraisal of the Empirical Evidence. **AU** Kim, Myung Jig; Nelson, Charles R.; Startz, Richard. **AA** University of

Washington. **SR** National Bureau of Economic Research Working Paper: 2795; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 311. **KW** Stock Market. Mean Reversion. Asset Markets. Stock Returns.

AB Recent research based on variance ratios and multiperiod-return autocorrelations concludes that the stock market exhibits mean reversion in the sense that a return in excess of the average tends to be followed by partially offsetting returns in the opposite direction. Dividing history into pre-1926, 1926-46, and post-1946 subperiods, we find that the mean-reversion phenomenon is a feature of the 1926-46 period, but not of the post-1946 period which instead exhibits persistence of returns. Evidence for pre-1926 data is mixed.

Kitchen, John

PD March 1988. **TI** Arbitrage Conditions, Interest Rates, and Intertemporal Commodity Price Relationships. **AU** Kitchen, John; Rausser, Gordon C. **AA** Kitchen: Economic Research Service, United States Department of Agriculture. Rausser: University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 489; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 25p. **PR** $5.00. **JE** 227, 715, 711, 313, 311. **KW** Arbitrage. Interest Rates. Commodity Prices. Risk Premium. Nonneutralities.

AB Recent studies have presented different views on the relationship between interest rates and commodity prices. The theory of storage and arbitrage approaches fully incorporate nominal interest rates in commodity price spreads. Alternative frameworks admit a relationship between the interest rate and commodity own rates of interest and, as a result, the commodity price spread would not completely incorporate the nominal interest rate. The various views on interest rate-commodity price relationships, the potential role of nonneutralities, and existing empirical evidence are examined.

Kleiner, Morris M.

TI Employer Behavior in the Face of Union Organizing Drives. **AU** Freeman, Richard; Kleiner, Morris M.

Klemperer, Paul D.

TI Exchange Rate Pass-Through When Market Shares Matter. **AU** Froot, Kenneth A.; Klemperer, Paul D.

Kolstad, Charles

TI Shapley Values as Ex Ante Measures of Relative Market Power: An Application to the Western U.S. Coal Market. **AU** Wolak, Frank; Kolstad, Charles.

Koohi, Kamali Feridoon

PD November 1988. **TI** The Pattern of Female Mortality in Iran and Some of Its Causes. **AA** St. Antony's College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 62; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PR** No Charge. **JE** 913, 841, 921. **KW** Female Mortality. Iran. Casuality.

AB This paper provides various demographic indicators which demonstrate the existence and pattern of excess female mortality in Iran, shown to be particularly pronounced among small girls. Some similarities are pointed out between Iran and India, especially a turning point in female mortality around the age of 35. Female employment, an important factor for women's welfare, is found to be uniformly low throughout the different provinces of Iran.

Korte, Bernhard

PD August 1988. **TI** Mathematische Methoden Beim Chip Design. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88519-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 70. **PR** No Charge. **JE** 213. **KW** Discrete Mathematics. Combinatorial Optimization. VLSI design.

AB Paper in German.

Kotlikoff, Laurence

TI The Dynamics of Living Arrangements of the Elderly. **AU** Boersch, Supan Axel; Kotlikoff, Laurence; Morris, John N.

PD December 1988. **TI** Estimating the Age-Productivity Profile Using Lifetime Earnings. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2788; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 825, 824, 826, 918, 821. **KW** Productivity. Earnings. Aging. Retirement. Employment. Labor Market.

AB Labor economists are particularly interested in the relationship of productivity and age because it can help test alternative theories of the labor market. This paper assumes risk neutral employers and estimates the age-productivity relationship using the first order condition that the present expected value of total compensation equals the present expected value of productivity; workers hired at different ages have different present expected values of total compensation, and, correspondingly, different present expected values of productivity. Hence, if one parameterizes the age-productivity relationship, the parameters of this relationship can be identified from information on how total present expected compensation varies with age.

Kottmann, Thomas

PD August 1988. **TI** OLS-Estimation and Rationality in Linear Models with Forecast Feedback. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-96; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 31. **PR** No Charge. **JE** 211. **KW** Discrete Time. OLS Regression. Forecasts. Dynamic Models. Asymptotic Theory. Stationarity.

AB We consider a dynamical system with discrete time. At each time the present values of the endogenous variables (i.e., those explained by the system) are uniquely determined as functions of: 1) past values of endogenous variables; 2) present and past values of exogenous variables; 3) the actual value of a disturbance variable; 4) forecasts of actual and future values of endogenous variables. The forecasts in 4) are made by individuals who do not take into account that their forecasts actually influence the present values of endogenous variables. Depending on the specification of the exogenous variables, the postulated functions and the methods of forecast, how will this system develop. What can in particular be said about its asymptotic (long run) behavior. In what sense and under what conditions will it be stationary.

Kravis, Irving

PD November 1988. **TI** The Effect of Multinational Firms' Foreign Operations on Their Domestic Employment. **AU** Kravis, Irving; Lipsey, Robert. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2760; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 442, 423, 824. **KW** Production. International Business. Foreign Production.

AB Given the level of its production in the United States, a firm that produces more abroad tends to have fewer employees in the United States and to pay slightly higher salaries and wages to them. The most likely explanation seems to be that the larger a firm's foreign production, the greater its ability to allocate the more labor-intensive and less skill-intensive portions of its activity to locations outside the United States. This relationship is stronger among manufacturing firms than among service industry firms, probably because services are less tradeable than manufactured goods or components, and service industries may therefore be less able to break up the production process to take advantage of differences in factor prices.

Krugman, Paul

PD November 1988. **TI** Differences in Income Elasticities and Trends in Real Exchange Rates. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 2761; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 431, 411, 023. **KW** Exchange Rates. Exports. Income Elasticities. Product Differentiation. Growth Rates.

AB One might expect that differences in income elasticities in trade and/or differences in growth rates among countries would give rise to strong secular trends in real exchange rates; for example, fast-growing countries might need steady depreciation to get the world to accept their growing exports. In fact, however, income elasticities are systematically related to growth rates by the "45-degree rule", under which fast-growing countries appear to face high income elasticities of demand for their exports, while having low income elasticities of import demand. The net effect of this relationship between elasticities and growth rates is that secular trends in real exchange rates are much smaller than one might otherwise have expected: relative PPP holds fairly well. This paper documents the existence of a "45-degree rule", and suggests an explanation in terms of increasing returns and product differentiation.

Kyle, Albert S.

TI Smart Money, Noise Trading and Stock Price Behavior. **AU** Campbell, John Y.; Kyle, Albert S.

Laderman, Elizabeth

TI The R&D Master File Documentation. **AU** Hall, Bronwyn; Cummins, Clint; Laderman, Elizabeth; Mundy, Joy.

Laffont, Jean Jacques

TI Renegotiation and the Form of Efficient Contracts. **AU** Green, Jerry; Laffont, Jean Jacques.

Lal, Deepak Kumar

PD March 1988. **TI** Transactions Costs or the Costs of Doing Business: Empirical Estimates for some Developing Countries. **AU** Lal, Deepak Kumar; Patel, Urjit. **AA** Lal: University College London. Patel: Yale University. **SR** University College London Discussion Paper: 88-17; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 10. **PR** 1.50 pounds sterling. **JE** 121, 112, 611. **KW** Developing Countries. Communication. Transactions Costs. Industrial Organization.

AB The importance of transactions costs in explaining market failure, as determinants of different forms of economic organization and of the differing economic histories of currently developed countries is well known. Myint (1970, 1987) has also emphasized differences in "organizational structure" with accompanying differentials in transactions costs as an important determination of the differences in the economic performance of developing countries. However, as numerous critics of the notion have noted, "the concept waits for definition" (Williamson (1979)).

PD April 1988. **TI** A Simple Framework for Analysing Various Real Aspects of Stabilization and Structural Adjustment Policies. **AA** University College London. **SR** University College London Discussion Paper: 88-16; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 45. **PR** 1.50 pound sterling. **JE** 111, 311, 411, 023. **KW** Stabilization. Structural Adjustment.

AB This paper shows how a simple geometric framework containing a real model based on the standard two good-three-factor trade theoretic model and a monetary model of the domestic banking system can be used to analyze the changes in the real and nominal values of various economic variables of concern resulting from stabilization and structural adjustment policies.

Lam, Pok sang

TI Mean Reversion in Equilibrium Asset Prices. **AU** Cecchetti, Stephen; Lam, Pok sang; Mark, Nelson.

Laroque, Guy

TI Using Privileged Information to Manipulate Markets: Insiders, Gurus, and Credibility. **AU** Benabou, Roland; Laroque, Guy.

PD November 1988. **TI** Inventories and the Fixprice Method. **AA** Unite Recherche INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8811; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 39. **PR** No Charge. **JE** 131, 022, 023, 212. **KW** Fixprice. Dynamics Models. Effective Demand. Inventories.

AB This paper has been written in the occasion of the 50th anniversary of "Value and Capital". It contains two parts. In the first part, a survey of the state of the fixprice method is given, focussing on the difficulties in the definition of effective demand, and on the mathematical problems associated with the study of the dynamics. In the second part, an example is presented where storage activities are responsible for the appearance of a large multiplicity of long run trajectories along which there is perfect foresight and expectations are self-fulfilling.

Lau, Lawrence J.

PD September 1986. **TI** The Inconsistency Between Expected Profit Maximization and Certainty Equivalence. **AU** Lau, Lawrence J.; Ma, Barry K. **AA** Lau: Stanford University. Ma: McGill University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 102; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 16. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 022, 026. **KW** Uncertainty. Variance. Volatility. Prices. Production.

AB The degree of uncertainty is an important factor affecting many economic decisions, including investment decisions. It is commonly assumed, however, that large firms may be taken to be risk-neutral and hence their decisions depend only on the mean conditions and not on the degree of uncertainty. For example, their investment decisions may depend only on the mean rate of return and not on its variability. In this paper, it is shown that under price uncertainty, even for a risk-neutral competitive firm, if there is an option to shut down when realized prices turn out to be unfavorable, then the decisions of a profit-maximizing firm will in general depend on not only the mean prices but also on the higher-order moments of the joint distribution of prices.

TI An Analysis of Postwar U.S. Consumption and Saving. **AU** Boskin, Michael J.; Lau, Lawrence J.

Lazear, Edward P.

PD August 1988. **TI** Adjusting to an Aging Labor Force. **AA** University of Chicago and Hoover Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-34; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 54. **PR** No Charge. **JE** 826, 813, 915, 521. **KW** Labor Force. Demographics. Pensions. Retirement.

AB Demographic changes in the labor force will imply that firms must change their labor policies in the coming decades. My estimates suggest that the labor force will get older and more female. The aging will not be as pronounced for males as for females because the trend toward early retirement among males will offset demographic changes. Given these changes, there are a number of issues that face employers. First, the aging workforce may mean an increase in the size of the firm's current deficit, defined as the difference between sales and labor cost. Second, under these circumstances, firms may do well to invest in assets that are highly correlated with the nominal wage bill liability. Third, explicit buyouts are the easiest way to reduce the size of the elderly workforce. Fourth, declining ages of retirement among males can be reversed by changes in social security policy.

PD December 1988. **TI** Adjusting to an Aging Labor Force. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 2802; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 824, 826, 521, 511, 514. **KW** Retirement. Labor Force. Business Finance. Labor Policy. Bankruptcy.

AB See addtional entry under this author and title.

TI Peer Pressure and Partnership. **AU** Kandel, Eugene; Lazear, Edward P.

LeBlanc, Michael

TI The Stochastic Coefficients Approach to Econometric Modeling, Part III: Estimation, Stability Testing, and Prediction. **AU** Swamy, P. A. V. B.; Conway, Roger; LeBlanc, Michael.

Ledyard, John O.

TI Allocating Uncertain and Unresponsive Resources. **AU** Banks, Jeffrey S.; Ledyard, John O.; Porter, David P.

PD November 1988. **TI** Information Aggregation in Two-Candidate Elections. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 685; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 22. **PR** No Charge. **JE** 025, 026. **KW** Election. Incomplete Information. Political Candidates. Public Polls. Politics. Campaign.

AB Many interesting political institutions, such as campaigning, polls, and sequences of elections can not be understood in the context of standard spatial competition models of elections with fully informed candidates and voters. To fill this void, we introduce a model of elections in which candidates are privately and asymmetrically informed about the electorate. This model differs from other incomplete information models, such as the rational expectations model, in that a full range of sequential strategic behavior is considered.

Lee, C. Jevons

TI Conditional Heteroskedasticity in the Market. **AU** Diebold, Francis X.; Im, Jong; Lee, C. Jevons.

Levine, Ross

PD November 1988. **TI** The Forward Exchange Rate Bias: A New Explanation. **AA** Division of International Finance, Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 338; Division of International Finance Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 66. **PR** No Charge. **JE** 431, 521, 132. **KW** Exchange Rates. Risk Premium. Forward Rates. Expectations.

AB Although the literature has devoted prodigious resources to investigating the risk premium explanation of the systematic time-varying discrepancies between forward and corresponding future spot exchange rates, empirical verification of the risk premium hypothesis has proven elusive. This paper tests an alternative explanation of the forward bias: the anticipated real exchange rate hypothesis. This hypothesis states that except for a constant risk premium, the predictable, time-varying wedge between forward and expected future spot exchange rates is fully explained by the anticipated rate of change in the real exchange rate. The data do not reject this hypothesis. This suggests that the literature's almost singular concern with the risk premium explanation of the forward bias should be amended to include the effects of anticipated real exchange rate movements.

Lewis, Tracy R.

PD March 1988. **TI** Monitoring Quality Provision in Regulated Markets. **AU** Lewis, Tracy R.; Sappington, David E. M. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 43; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 24. **PR** No Charge. **JE** 022, 613, 616, 514. **KW** Regulation. Product Quality.

Consumer Surplus.
AB We examine how a regulator will optimally induce the supply of quality from a regulated firm when the costs of supply are not known to the regulator. We show that when the quality of the regulated product is observable to the regulator, more quality will be induced, prices will be lower, and both consumers' surplus and profits will be higher than if quality is unobservable. Thus, both the regulator and firm strictly prefer that the regulator be able to monitor quality.

PD August 1988. **TI** Renegotiation and Specific Performance. **AU** Lewis, Tracy R.; Perry, Martin K.; Sappington, David E. M. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 53; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 27. **PR** No Charge. **JE** 022, 024. **KW** Renegotiation. Breach of Contract. Private Information. Social Welfare.
AB We examine the implication of enforcing specific performance for attempted breach of contract in a model of renegotiation. We show that after the supplier receives relevant private information, renegotiation does not always occur even though gains from trade exist. We also argue that enforcement of specific performance can result in a higher level of expected social welfare, appropriately defined, relative to the case where monetary damages for breach of contract are permitted.

PD October 1988. **TI** An Informational Effect When Regulated Firms Enter Unregulated Markets. **AU** Lewis, Tracy; Sappington, David E. M. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 52; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 19. **PR** No Charge. **JE** 022, 613, 616, 514. **KW** Regulation. Asymmetric Information. Production. Incentives.
AB We consider an informational effect that may arise when a regulated firm is permitted to enter an unregulated market. The effect counteracts the firm's normal incentive to exaggerate production costs in the regulated market. Consequently, the regulator may be better able to limit the firm's rents by authorizing entry into an unregulated market. We also demonstrate that when such entry is permitted, optimal prices in the regulated market are relatively insensitive to actual production costs.

PD October 1988. **TI** Oversight of Long-Term Investment by Short-Lived Regulators. **AU** Lewis, Tracy R.; Sappington, David E. M. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 44; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 44. **PR** No Charge. **JE** 022, 613, 616, 514. **KW** Investment. Regulation.
AB Certain regulators of economic activity, like utility regulators and government procurement officers, typically serve for relatively short periods of time. We consider how to best motivate long-term investment in the presence of short-lived regulators. A firm's investment decision is overseen by one regulator. Whether the investment is ultimately adopted is determined by a second, distinct regulator. Each regulator is concerned with the welfare of its own contemporary population. Transfer payments between populations are limited, and relevant data cannot be verified by third parties. Underadoption and underinvestment "on average" result, although overinvestment may also occur under the optimal regulatory charter.

Lipsey, Robert
TI The Effect of Multinational Firms' Foreign Operations on Their Domestic Employment. **AU** Kravis, Irving; Lipsey, Robert.

Love, H. Alan
TI Modeling Alternative Trade and Macroeconomic Scenarios: Implications for U.S. Agriculture. **AU** Rausser, Gordon C.; Stamoulis, Kostas G.; Love, H. Alan; Chalfant, James A.

PD September 1988. **TI** Flexible Public Policy: The Case of the United States Wheat Sector. **AU** Love, H. Alan; Rausser, Gordon C. **AA** Love: Oregon State University. Rausser: University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 494; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 38p. **PR** $7.60. **JE** 713, 712, 715. **KW** Agricultural Policy. Wheat. Agriculture.
AB During the early 1980s, United States agriculture underwent its worst financial crisis since the Great Depression in spite of record spending on government agricultural programs. This paper tests the hypothesis that the severity of the crisis may have been moderated if agricultural policy had been more flexible.

Lovejoy, William S.
PD October 1988. **TI** Computationally Feasible Bounds For Partially Observed Markov Decision Processes. **AA** Stanford University. **SR** Stanford Graduate School of Business Research Paper: 1024; Graduate School of Business, Stanford University, Stanford, CA 94305-5015. **PR** No Charge. **JE** 213, 211, 214. **KW** Dynamic Programming. Bayesian Programming. Markov Models. State Space Models.
AB A partially observed Markov decision process (POMDP) is a sequential decision problem where information concerning parameters of interest is incomplete, and possible actions include sampling, surveying, or otherwise collecting additional information. Such problems can theoretically be solved as dynamic programs, but the relevant state space is infinite, which inhibits algorithmic solution. This paper explains how to approximate the state space by a finite grid of points, and use that grid to construct upper and lower value function bounds, generate approximate nonstationary and stationary policies, and bound the value loss relative to optimal for using these policies in the decision problem. A numerical example illustrates the methodology.

Lupia, Arthur
TI An Alternative Statistical Measure for Racially Polarized Voting. **AU** McCue, Kenneth; Lupia, Arthur.

Lyon, Andrew
TI Tax Neutrality and Intangible Capital. **AU** Fullerton, Don; Lyon, Andrew.

PD January 1988. **TI** The Effect of the Investment Tax Credit on the Value of the Firm. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-17; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 34. **PR** No Charge. **JE** 521, 522. **KW** Investment Tax Credit. Tax Law. Corporate Taxes. Firm Value.

AB A change in the tax law that increases investment incentives for new assets may result in excess returns on new investment, causing firm value to increase. Alternatively, because the investment incentives apply only to new investments, the value of existing assets that compete with these investments may decline. A model is developed in this paper which shows that in general investment incentives have a theoretically ambiguous effect on firm value. Models proposed by Abel (1982), Auerbach and Kotlikoff (1983), and Feldstein (1981) are shown to be special cases of this more general model. Empirical tests examine the changes in firm value to repeated changes of the investment tax credit. Cross-sectional tests find the changes in firm value are positively related to the expected receipt of investment tax credits. No evidence is found to support a relationship between expected changes in the value of a firm's existing assets and changes in firm value.

Ma, Barry K.

TI The Inconsistency Between Expected Profit Maximization and Certainty Equivalence. **AU** Lau, Lawrence J.; Ma, Barry K.

Maccini, Louis

TI Inventories, Orders, Temporary and Permanent Layoffs: An Econometric Analysis. **AU** Haltiwanger, John; Maccini, Louis.

MacDonald, Glenn M.

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

Madan, Dilip

PD May 1987. **TI** A Note on the Estimation of Non-Symmetric Dynamic Factor Demand Models. **AU** Madan, Dilip; Prucha, Ingmar. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-3; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 10. **PR** No Charge. **JE** 212, 211. **KW** Dynamic Models. Factor Demand.

AB In a recent article Epstein and Yatchew (1985) introduced a simplified procedure for the estimation of symmetric dynamic factor demand models. This procedure hinges on a reparametrization of the model, results in closed form analytic expressions for the firm's factor demand, and can be carried out by standard econometric packages. The purpose of this note is to extend the procedure to the case of non-symmetric dynamic factor demand models.

Mankiw, N. Gregory

PD December 1988. **TI** The Baby Boom, the Baby Bust, and the Housing Market. **AU** Mankiw, N. Gregory; Weil, David N. **AA** Mankiw: National Bureau of Economic Research. Weil: Harvard University. **SR** National Bureau of Economic Research Working Paper: 2794; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 932, 931. **KW** Housing. Demographics. Households.

AB This paper examines the impact of major demographic changes on the housing market in the United States. The entry of the Baby Boom generation into its house-buying years is found to be the major cause of the increase in real housing prices in the 1970s. Since the Baby Bust generation is now entering its house-buying years, housing demand will grow more slowly in the 1990s than in any time in the past forty years. If the historical relation between housing demand and housing prices continues into the future, real housing prices will fall substantially over the next two decades.

Manning, Richard

PD September 1988. **TI** National Product Functions in Comparative Steady-State Analysis. **AU** Manning, Richard; Markusen, James R. **AA** Manning: State University of New York at Buffalo. Markusen: University of Western Ontario. **SR** University of Western Ontario Center for the Study of International Economic Relations Working Paper: 8808C; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 35. **PR** $4.00 Canadian. **JE** 411, 111, 023. **KW** Steady States. Long run Growth. Small Open Economy.

AB The structural properties of steady states are well understood for multi-sector models, but the comparative dynamics of long run growth are much less developed. By exploiting duality theory, this paper obtains conclusions about these effects for a small, internationally-trading, economy. Arbitrary numbers of consumption and capital goods, and a very general technology, are admitted. Definite conclusions about the short run and long run impact on outputs and factor prices are not always available. Some correlations can be established between vectors of parameter changes and endogeneous variable changes, however. To confirm that some correlations hold it is necessary to impose strong assumptions.

Mansoorian, Arman

PD November 1988. **TI** Current Account Dynamics in a Heckscher-Ohlin Economy with Finite Horizons. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 733; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 25. **PR** $3.00 Canada; $3.50 United States and Foreign. **JE** 411, 431, 023. **KW** Terms of Trade. Current Account. Overlapping Generations. Capital-labor Ratio.

AB The Heckscher-Ohlin model is incorporated into the overlapping generations framework of Blanchard (1985), and the effects of a terms of trade change on the current account are studied. As financial wealth is insurable, the rate of discount for future income from capital is smaller than the rate of discount for future labor income. Thus, factor intensities play an important role in the current account dynamics. The size of the rate of time preference plays an important role as well, as agents work throughout their lives.

Marchand, Maurice

TI Optimal Public Sector Employment Policy with Endogenous Involuntary Unemployment. **AU** Boadway, Robin W.; Marchand, Maurice; Pestieau, Pierre.

Mark, Nelson

TI Mean Reversion in Equilibrium Asset Prices. **AU** Cecchetti, Stephen; Lam, Pok sang; Mark, Nelson.

Markandya, Anil

TI Sustainable Development in the Sahel: Two Essays. **AU** Pearce, David W.; Markandya, Anil; Barrett, Scott; Heady, Christopher J.

Markusen, James R.

TI National Product Functions in Comparative Steady-State Analysis. **AU** Manning, Richard; Markusen, James R.

Marquez, Jaime

PD November 1988. **TI** The Dynamics of Uncertainty or the Uncertainty of Dynamics: Stochastic J-Curves. **AA** Division of International Finance, Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 335; Board of Governors of the Federal Reserve System, Washington, DC 20551. **PG** 49. **PR** No Charge. **JE** 431, 132, 133. **KW** Stochastic Simulations. Price Elasticities. Trade Deficit. Depreciation. Exchange Rates.

AB This paper characterizes the statistical distribution of the response of the United States trade account to a dollar depreciation. To accomplish this task, the paper builds and estimates an econometric model of United States bilateral trade. Given an exchange rate shock, this distribution is generated empirically by stochastically simulating this model using random drawings for both innovations and trade elasticities. The paper finds that the distribution of trade account responses is not stationary, that its variance is directly related to the size of the exchange rate shock, that the dominant source of uncertainty lies with imports' price elasticities, and that the dispersion of these responses is more pronounced in the short run than in the long run. Based on these properties, the analysis applies Chebychev's inequality to the sample of trade account responses and finds that hysteresis in price elasticities has a low probability of accounting for the persistence of the United States trade deficit.

Marron, J. S.

TI Comparision of Data-Driven Bandwidth Selectors. **AU** Park, Byeong; Marron, J. S.

Matzkin, Rosa L.

PD September 1988. **TI** Nonparametric and Distribution-Free Estimation of the Binary Choice and the Threshold-Crossing Models. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 889; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 53. **PR** $2.00. **JE** 211. **KW** Nonparametric Models. Identification. Likelihood Function. Consistency.

AB This paper studies the problem of nonparametric identification and estimation of binary threshold-crossing and binary choice models. First, conditions are given that guarantee the nonparametric identification of both the function of exogenous observable variables and the distribution of the random terms. Second, the identification results are employed to develop strongly consistent estimation methods that are nonparametric in both the function of observable exogenous variables and the distribution of the unobservable random variables. The estimators are obtained by maximizing a likelihood function over nonparametric sets of functions. A two-step constrained optimization procedure is devised to compute these estimators.

Mayer, Thomas

PD September 1988. **TI** Economic Structure, the Exchange Rate and Adjustment in the Federal Republic of Germany: A General Equilibrium Approach. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/79; International Monetary Fund, Washington, DC 20431. **PG** 30. **PR** No Charge. **JE** 431, 411. **KW** Devaluation. Exchange Rates. Capital Mobility.

AB This paper traces the effects of an appreciation of the deutsche mark with the help of a computable general equilibrium model under alternative structural policy scenarios. In the first scenario, characterized by severe structural rigidities, the contractionary effects of exchange rate appreciation dominate the expansionary effects so that GDP and employment fall and the external surplus declines only little. In the alternative (and polar opposite) case of free movement of goods, services, and factors, the expansionary effects of the appreciation become more prominent as supply and demand respond much more readily to the relative price changes.

PD January 1989. **TI** Fluctuations in the Monetary Growth Rate During the Quasi-Monetarist Experiment. **AA** Univrsity of California at Davis. **SR** University of California at Davis Research Program in Applied Macro and Macro Policy: 60; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 25. **PR** No Charge. **JE** 311, 131, 221. **KW** Monetarist Experiment. Money Multiplier. Money Supply. Monetary Policy. Federal Reserve.

AB During the quasi-monetarist experiment the growth rate of M-1, but not of M-2, became much more erratic. Decomposing the variability of the monthly M-1 growth rate into the standard deviations of the aggregates, their multipliers and the covariances shows that all three were involved, with the multiplier being more responsible than the aggregates. The increased variability of the base multipliers was due in large part to the currency ratio. These results do not support either blaming the Fed's policy procedures, or the argument that the monetarist experiment demonstrates that the Fed cannot control the M-1 growth rate.

Mayers, David

PD September 1988. **TI** On the Corporate Demand for Insurance: Evidence from the Reinsurance Market. **AU** Mayers, David; Smith, Jr Clifford W. **AA** Mayers: Ohio State University. Smith: University of Rochester. **SR** University of Rochester Managerial Economics Research Center Working Paper: MERC 88-13; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 27 pages. **PR** No Charge. **JE** 521. **KW** Insurance. Reinsurance. Corporations.

AB Significant attention recently has been focused on the determinants of corporate insurance purchases. While this analysis of the corporate demand for insurance generally involves observable firm characteristics, its implications have been untested. This is primarily due to the difficulty in obtaining data on corporate insurance purchases. We examine one industry where data on insurance purchases are systematically reported: the insurance industry. A reinsurance contract is an insurance policy purchased by one insurance company from another. Our examination of reinsurance purchases by 1276 property/casualty insurance companies provides strong evidence on the effects of ownership structure, size, geographic concentration, and line-of-business concentration on the demand for reinsurance.

McConnell, Virginia

PD July 1988. **TI** The Impact of Environmental Regulation on Industry Location Decisions: The Motor Vehicle Industry. **AU** McConnell, Virginia; Schwab, Robert. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-43; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 28. **PR** No Charge. **JE** 722, 613, 631, 321. **KW** Environment. Pollution. Regulation. Industry Location.

AB The paper examines the impact of regional variation in environmental regulations on industry location decisions for one industry, automobile production. The focus is on location decisions in the 1970s, which was a time when there was some regional variation in environmental regulations in this industry, at both the county and state level, and when the costs of complying were sufficiently large that they might affect location decisions. Using a conditional logit model, we determine the regional factors important in firm location decisions for this industry, including various county and state measures reflecting the stringency of environmental regulations. We find no evidence that environmental regulations deter firm location in this industry when regulations are measured by a simple distinction between areas in attainment of ambient ozone standards and those not in attainment. There is some indication, though, that the degree to which an area is out of attainment matters. Urban areas which are severely out of compliance with standards are less likely to be chosen.

McCormick, S. T.

TI Integral Infeasibility and Testing Total Dual Integrality. **AU** Applegate, D. L.; Cook, W.; McCormick, S. T.

McCue, Kenneth

PD January 1989. **TI** An Alternative Statistical Measure for Racially Polarized Voting. **AU** McCue, Kenneth; Lupia, Arthur. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 690; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 30. **PR** No Charge. **JE** 917, 025. **KW** Aggregation. Voting. Polarization.

AB Measurements of the existence and extent of racially polarized voting are often at the forefront of the evidence presented in vote dilution litigation. Previous models used in the measurement of racially polarized voting have been inadequate for a broad range of cases. The source of this inadequacy is that these models were not based upon assumptions about individual behavior. A new model, which is based on reasonable assumptions about individual behavior and can be approximated by a varying parameters model, is derived. By contrasting the new model with the other models, it is shown that both the correlation coefficient and linear regression can lead to inaccurate, misleading or incorrect conclusions about the state of racial polarization in the electorate. After providing a straightforward statistical test for identifying misspecification and showing how to obtain estimates for this model by the method of maximum likelihood, the model is compared with an individual level data set of an election where racially polarized voting occurred (1988 California presidential primary). A new measure for the estimation of racially polarized voting is then proposed.

McCurdy, Thomas H.

TI Sources of Employment Growth by Occupation and Industry in Canada: A Comparison of Structural Changes in the 1960's and 1970's. **AU** Betts, Julian R.; McCurdy, Thomas H.

McGartland, Albert

TI The NET Benefits of Incentive-Based Regulation: The Case of Environmental Standard Setting in the Real World. **AU** Oates, Wallace; Portney, Paul; McGartland, Albert.

McKenna, C. J.

PD August 1988. **TI** Bargaining and Strategic Search. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-19; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 11. **PR** $.20 per page Canadian to other than educational institutions. **JE** 026, 821. **KW** Sequential Bargaining. Search Theory. Insider-Outsider Theory. Involuntary Unemployment.

AB This paper specifies an alternative type of switching friction, in a model of sequential bargaining, to that suggested by Shaked and Sutton (1984). An imperfect and costly search technology gives the current 'insider' a bargaining advantage over alternative partners for the firm. Where all potential partnerships generate the same rent, search has a purely strategic value.

TI Inventories, Strike Funds and Bargaining Outcomes. **AU** Jones, Stephen R. G.; McKenna, C. J.

Medeiros, Carlos

PD August 1988. **TI** The Potential Role of the SDR in Diversified Currency Portfolios of Central Banks. **AU** Medeiros, Carlos; Nocera, Simon. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/81; International Monetary Fund, Washington, DC 20431. **PG** 30. **PR** No Charge. **JE** 431, 432, 311. **KW** Reserve Asset. Exchange Rate. Foreign Reserves. Portfolios.

AB This paper compares the SDR in terms of its risk-return characteristics relative to those of its five components and, on this basis, finds that the SDR has performed favorably over the period under review. In addition, several efficient portfolios including the SDR and its components are computed. These computations provide evidence that in many cases the SDR has a major weight, particularly in those portfolios which involve minimum risk and therefore would appear to be most appropriate for reserve holders. Thus, the evidence presented suggests that the SDR can play a major role in the international reserve portfolios of central banks.

Meghir, Costas

TI Unemployment Discouraged Workers and Female Labour Supply. **AU** Blundell, Richard; Ham, John; Meghir, Costas.

Mehra, Rajnish

TI On Some Computational Aspects of Equilibrium Business Cycle Theory. **AU** Danthine, Jean Pierre; Donaldson, John D.; Mehra, Rajnish.

Menchik, Paul L.

PD April 1986. **TI** Determinants of Intended Bequests.

AU Menchik, Paul L.; Irvine, F. Owen; Jianakoplos, Nancy A. **AA** Michigan University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-197; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 32. **PR** No Charge. **JE** 918, 921, 026. **KW** Bequest. Life-Cycle Models. Savings. Asymetric Information. Adverse Selection. Savings Behavior.

AB Recent research has expressed dissatisfaction with the strict (non-bequest) life-cycle model as the sole or even the major explanation of saving in the United States. Economists have begun to seek out and quantify alternative explanations of saving behavior.

Mesters, Matheus

PD June 1987. **TI** Firm Ownership and Competition. **AU** Mesters, Matheus; Ostensoe, Lawrence A. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 123; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 31. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 611, 022. **KW** Collusion. Cartels. Corporate Control. Mergers. Entry.

AB This paper synopsizes the proceedings of the conference on "Firm Ownership and Competition" held at Stanford University June 19-20, 1987. Dilip Mookherjee and Peter Reiss, both from the Graduate School of Business at Stanford University, organized the conference. The conference fostered an exchange of views amongst theorists, empiricists, policy economists, and lawyers on avenues for future research in three areas: Collusion and Cartels, Entry and Exit, and Corporate Control and Mergers. Each topic featured speakers outlining what they consider the salient findings of recent research, directions for future research, and the impact this research might have on public policy.

Metcalf, David

PD August 1988. **TI** Trade Unions and Economic Performance: The British Evidence. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 320; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 32. **PR** No Charge. **JE** 831, 824, 825, 826. **KW** Trade Unions. Productivity. Profit. Employment. Wage Structure. Closed Shop.

AB Half of all British employees are union members. Union activity has both a vested interest effect and a sword of justice effect. Unions lower labor productivity and raise the pay of their members relative to comparable non-union members. Consequently profitability is lower in union companies than in non-union companies. Further unionized workplaces suffered greater job losses in the 1980s than their non-union counterparts. These effects of union activity on economic performance are substantially stronger where there is a closed shop than where unions are recognized for collective bargaining but there is no closed shop. Unions are also a force for equality. They lower the dispersion in pay and narrow the skill, race and sex wage structure.

Meyer, Bruce D.

PD December 1988. **TI** Implications of the Illinois Reemployment Bonus Experiments for Theories of Unemployment and Policy Design. **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper: 2783; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 822, 824, 821. **KW** Unemployment. Employment. Unemployment Benefits. Government Policy. Incentives. Search Theory.

AB Reemployment bonus experiments offer large lump sum payments to unemployment insurance (UI) recipients who find a job quickly. Such experiments are underway or have been recently completed in four states. This paper analyzes the results from Illinois and discusses the implications of the experiments for theories of unemployment and policy design. I examine the hazard rate of exit from unemployment and find that it is significantly higher for the experimental groups, but only during the period of bonus eligibility. Both labor supply and search theories of unemployment are shown to suggest a rise in the reemployment hazard just before the end of bonus eligibility and to suggest larger effects of the fixed amount bonus for lower income groups. Only weak support is found for these hypotheses, which suggests limitations of the models of unemployment. Some modifications of the models are suggested.

Meyer, Paul A.

PD December 1987. **TI** Banking and Commerce: Joint or Separate. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-12; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 22. **PR** No Charge. **JE** 312, 314. **KW** Commercial Banks. Risk. Bank Expansion.

AB This paper analyzes proposals to repeal Glass-Steagall and even more sweeping proposals to let banks offer any product. Bank expansionists have spent much of their energy exploring ways to construct the proverbial Chinese Wall and analyzing other specialized issues. They conclude a Chinese Wall insulating banks from their nonbank businesses can be built. Expansionists then more or less take as self-evident three benefits from product expansion and diversification. (1) Product expansion leads to economies of scope, which greatly aid the chances of banks' survival in an age where technological advances have led to a decline in intermediation and an expansion in primary securities markets. (2) Diversification reduces bank risk and the cost of capital. (3) Product expansion increases competition. We first show theoretically that none of these benefits need follow. A review of the empirical literature then confirms that none will indeed follow.

Milbourne, R. D.

TI Estimates of GDP, Monthly, 1962 to 1985. **AU** Guay, Richard; Milbourne, R. D.; Otto, G.; Smith, G. W.

Milgrom, Paul

PD July 1988. **TI** The Economics of Modern Manufacturing: Products, Technology and Organization. **AU** Milgrom, Paul; Roberts, John. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 136; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 27. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 514, 511, 611, 616. **KW** Production. Corporate Strategy.

Inventory. Manufacturing. Technology.
AB The prototypical manufacturing strategy of the early twentieth century was that of Henry Ford, based on producing for inventory a single unchanging product in high volume using specialized equipment within a single integrating manufacturing organization. A variety of changes in technology, including falling costs of communication, flexible production equipment, and computer aided design, have combined to make this strategy obsolete. Modern manufacturing strategies are more often based on either wide product variety or frequent product improvements, with products produced to order in response to customer demands using flexible manufacturing equipment and often with extensive reliance on independently owned suppliers and subcontractors. We argue that complementarities among product, technology, and organizational decisions account for these clusters of effects -- it doesn't pay for firms to adopt only parts of the new strategies.

Miron, Jeffrey

PD November 1988. **TI** Production, Sales, and the Change in Inventories: An Identity That Doesn't Add Up. **AU** Miron, Jeffrey; Zeldes, Stephen P. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2765; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 226. **KW** Production. Measurement Error. Indexes. Accounting. Manufacturing.
AB We examine two measures of monthly manufacturing production. The first is the index of industrial production; the second is constructed from the accounting identity that output equals sales plus the change in inventories. We show that the means, variances, and serial correlation coefficients of the log growth rates differ substantially between the two series, and the cross-correlations between the two seasonally adjusted series are in most cases less than .4. A model of classical measurement error indicates that in 15 of 20 2-digit industries measurement error accounts for over 35 per cent of the variation in the monthly growth rates of seasonally adjusted industrial production.

Mitchell, Janet

PD August 1988. **TI** Managerial Discipline, Resource Allocation, and Bankruptcy: A Study of the Bankruptcy Laws in Yugoslavia and Hungary. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8817; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 27 pages. **PR** No Charge. **JE** 052, 123, 521, 022. **KW** Bankruptcy. Resource Allocation. Socialism. Capital Markets. Principal-Agent Theory.
AB This paper discusses three roles that bankruptcy laws are intended to serve in reforming socialist economies: increasing the discipline of enterprise managers; improving the efficiency of resource allocation; and improving the functioning of capital markets. It considers the design and implementation of bankruptcy laws in socialist economies as a principal-agent problem with a three-tier hierarch of principals and agents. The need to discipline enterprise managers derives from a problem of moral hazard, whereas the need to improve the efficiency of resource allocation stems from problems of adverse selection. The paper examines the bankruptcy laws in Yugoslavia and Hungary through the principal-agent framework, predicts the effects that the laws would have if strictly enforced, and discusses experience with their enforcement.

Moffitt, Robert

TI An Estimate of a Sectoral Model of Labor Mobility.
AU Jovanovic, Boyan; Moffitt, Robert.

Mondino, Guillermo

TI Capital Mobility and Monetary Policy in Columbia.
AU Rennhack, Robert; Mondino, Guillermo.

Morris, John N.

TI The Dynamics of Living Arrangements of the Elderly.
AU Boersch, Supan Axel; Kotlikoff, Laurence; Morris, John N.

Morrison, Catherine

PD May 1988. **TI** Productivity Growth and Changes in the Terms of Trade in Japan and the U.S. **AU** Morrison, Catherine; Diewert, W. E. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-09; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 47. **PR** $.20 per page Canadian to other than educational institutions. **JE** 431, 411, 224, 226. **KW** Terms of Trade. Balance of Payments. Productivity. Trade Deficit. International Trade.
AB In this paper we employ a recently proposed procedure (Diewert and Morrison '1985() for adjusting real domestic product and productivity for changes in a country's terms of trade. We apply this procedure to a comparison of two major industrialized countries, the United States and Japan. The approach is based on assessing the impact on final sales to domestic purchasers, of changes in terms of trade and the balance of payments deficit in a consistent accounting framework. This treatment of international trade allows for comparative statics analysis based only on production theory. The comparison is carried out for a relatively open economy, Japan, with an economy that may not be as vulnerable to terms of trade changes, the United States, for the years 1967 to 1982.

PD December 1988. **TI** Markups in U.S. and Japanese Manufacturing: A Short Run Econometric Analysis. **AA** Tufts University. **SR** National Bureau of Economic Research Working Paper: 2799; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 631, 022, 023. **KW** Production. Manufacturing. Markup. Elasticity. Adjustment Costs. Demand Shocks.
AB In this paper a production theory-based model of firms' markup behavior is constructed. The theoretical structure is based on variants of generalized Leontief cost and expenditure functions. This structure yields a full specification of behavior from which the impacts of both supply and demand shocks on firms' markup behavior can be assessed through elasticities. Adjustment costs on both labor and capital and economies of scale are incorporated. Estimation is carried out using manufacturing data for the United States and Japan from 1960 through 1981. The empirical results suggest that markups for manufacturing firms in the United States and Japan have increased over time, but tend to be procyclical in the United States and countercyclical in Japan.

Mosser, Patricia

PD November 1988. **TI** Materials Inventories and Shortfall Costs. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 412; Department of Economics, Columbia University, New York, NY 10027. **PG** 36. **PR** $5.00. **JE** 522, 521, 631. **KW** Inventories. Finished Goods. Material Stocks. Manufacturing.

AB Much of the empirical and theoretical work on aggregate inventories has concentrated on the behavior of stocks of manufacturers' finished goods. In recent empirical studies, the attention on finished goods has been to the virtual exclusion of other types of inventory, specifically work-in-progress inventories and materials and supplies stocks. This emphasis appears misplaced both on a size basis: finished goods inventories account for only one-third of all manufacturing inventories while the other two-thirds is split approximately equally between works and materials; and because works and materials serve quite different functions and have different time series properties than finished goods. This paper is a preliminary investigation of this latter group of inventories, manufacturing materials and supplies. It presents and estimates a representative agent model of inventory carrying costs and shortfall costs which a manufacturing purchasing agent might face.

Mountain, Dean

PD August 1988. **TI** A Combined Structural and Flexible Functional Approach for Modeling Energy Substitution. **AU** Mountain, Dean; Hsiao, Cheng. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8815; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 43 pages. **PR** No Charge. **JE** 723, 212. **KW** Energy Substitution. Fourier Function. Cobb-Douglas. Production Functions. Elasticity of Substitution. Input Substitution.

AB In theory, a flexible functional form can approximate an arbitrary elasticity of substitution; however, when faced with an actual finite data set, a parsimonious parametric functional form which imposes more structural restrictions may yield a more accurate approximation about underlying substitution. Therefore, for uncovering the underlying degree of input substitution, we suggest a data exploration strategy which combines the parametric family of a system of quadratic log-ratio demand equations and conventional flexible functional forms. We are then able to test for more restrictive hypotheses about substitution at the 2 digit SIC level for manufacturing industries in the provinces of Ontario and Quebec, Canada.

Mowery, David

TI The Economic Analysis of Payoffs From Basic Research -- An Examination of the Case of Particle Physics Research. **AU** David, Paul; Mowery, David; Steinmueller, W. Edward.

Mueller, Dennis

PD July 1988. **TI** Probabilistic Majority Rule. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-39; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 23. **PR** No Charge. **JE** 025, 024. **KW** Efficient Allocation. Redistribution. Majority Rule. Voting Rule. Social Choice.

AB Much of the public choice literature emphasizes the importance of separating allocative efficiency decisions from redistribution decisions, and the likely appropriateness of different voting rules for each type of decision. Yet legislatures and parliaments the world over routinely consider both types of decisions using the same procedures and voting rule, typically a variant on the simple majority rule. This paper discusses a voting procedure, which has attractive properties for resolving both allocative efficiency and redistribution decisions. The decision rule makes the outcomes of a committee dependent in a probabilistic way on the votes cast for each alternative, when consensus on a single proposal is not possible.

Mundy, Joy

TI The R&D Master File Documentation. **AU** Hall, Bronwyn; Cummins, Clint; Laderman, Elizabeth; Mundy, Joy.

Murphy, Kevin J.

TI Relative Performance Evaluation for Chief Executive Officers. **AU** Gibbons, Robert; Murphy, Kevin J.

Murphy, Neil B.

PD August 1988. **TI** Determinants of Household Check Writing: The Impacts of the Use of Electronic Banking Services and Alternative Pricing of Checking Services. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 38; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 13. **PR** No Charge. **JE** 312, 921. **KW** Automatic Teller Machines. Bank Policy. Banks. Commercial Banks. Checking Accounts.

AB In recent years there has been a simultaneous deregulation of interest ceilings on household deposits and a dramatic deployment of automatic teller machines (ATMs) by the banking industry. At one time there was a belief that the United States would evolve into a "checkless society" because of the development of electronic funds transfer systems such as the ATM. That has clearly not happened. The purpose of this paper is to estimate the impacts of both the use of ATMs and the change in pricing due to deregulation on household check writing. The source of the data is a survey of households conducted by the Board of Governors of the Federal Reserve System. The results of the tests indicate that use of electronic banking services had no discernible impact on check writing while different methods of pricing checking account services did have a substantial impact on check writing.

Nadiri, M. Ishaq

TI On the Computation of Estimators in Systems With Implicitly Defined Variables. **AU** Prucha, Ingmar; Nadiri, M. Ishaq.

Nakamura, Shinsuke

PD October 1988. **TI** Feasible Nash Implementation of Competitive Equilibria in an Economy with Externalities. **AA** University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 248; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 23. **PR** Free. **JE** 024, 022. **KW** Nash Implementation. Competitive Equilibria. Externalities. Welfare Economics.

AB This paper proves feasible Nash implementability of the Pigouvian competitive equilibria in an economy with consumption externalities, as well as proofs of the existence of Pigouvian equilibria and the fundamental theorems of welfare economics with regard to the Pigouvian equilibria.

Narayana, Aluri

TI Excise Tax Evasion: A Welfare Cum Crime Theoretic Analysis. **AU** Panagariya, Arvind; Narayana, Aluri.

Neary, Hugh M.

PD August 1988. **TI** A Simple Macroeconomic Model of a Labour-Managed Economy. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-06; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 16. **PR** $.20 per page Canadian to other than educational institutions. **JE** 052, 053, 023, 133. **KW** Labor Managed Firm. Macroeconomic Model. Socialism. Stabilization Policy.

AB A simple macroeconomic model of a labor-managed economy is analyzed. The paper looks at the comparative statics of stabilization policy in this type of economy, while taking fully into account the nature of the macroeconomic equilibrium involved. The fixed price, quantity adjusting paradigm for describing non-Walrasian equilibria is adopted. The effect of quantity constraints is to attenuate severely the 'perverse' supply behavior of the labor-managed firm. In consequence the results of previous analyses of labor-managed macroeconomics, which depend critically on the perverse supply behavior, are found to be not robust.

Nelson, Charles R.

PD September 1988. **TI** Some Further Results on the Exact Small Sample Properties of the Instrumental Variable Estimator. **AU** Nelson, Charles; Startz, Richard. **AA** University of Washington. **SR** National Bureau of Economic Research Technical Paper: 68; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 211. **KW** Instrumental Variables. Small Sample Properties. Asymptotic Theory. IV Estimator.

AB New results on the exact small sample distribution of the instrumental variable estimator are presented by studying an important special case. The exact closed forms for the probability density and cumulative distribution functions are given. There are a number of surprising findings. The small sample distribution is bimodal, with a point of zero probability mass. As the asymptotic variance grows large, the true distribution becomes concentrated around this point of zero mass. The central tendency of the estimator may be closer to the biased least squares estimator than it is to the true parameter value. The first and second moments of the IV estimator are both infinite. In the case in which least squares is biased upwards, and most of the mass of the IV estimator lies to the right of the true parameter, the mean of the IV estimator is infinitely negative. The difference between the true distribution and the normal asymptotic approximation depends on the ratio of the asymptotic variance to a parameter related to the correlation between the regressor and the regression error.

PD September 1988. **TI** The Distribution of the Instrumental Variables Estimator and its t-Ratio When the Instrument is a Poor One. **AU** Nelson, Charles; Startz, Richard. **AA** University of Washington. **SR** National Bureau of Economic Research Technical Paper: 69; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 211. **KW** Instrumental Variables. Finite Sample Properties. Asymptotic Theory. Spurious Correlation.

AB When the instrumental variable is a poor one, in the sense of being weakly correlated with the variable it proxies, the small sample distribution of the IV estimator is concentrated around a value that is inversely related to the feedback in the system and which is often further from the true value than is the plim of OLS. The sample variance of residuals similarly becomes concentrated around a value which reflects feedback and not the variance of the disturbance. The distribution of the t-ratio reflects both of these effects, stronger feedback producing larger t-ratios. Thus, in situations where OLS is badly biased, a poor instrument will lead to spurious inferences under IV estimation with high probability, and generally perform worse than OLS.

PD September 1988. **TI** The Time-Varying-Parameter Model as an Alternative to ARCH for Modeling Changing Conditional Variance: The Case of Lucas Hypothesis. **AU** Nelson, Charles; Kim, Chang Jin. **AA** University of Washington. **SR** National Bureau of Economic Research Technical Paper: 70; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 133, 131, 311, 023. **KW** Monetary Growth. Money Supply. Aggregate Demand. Monetary Policy.

AB The main econometric issue in testing the Lucas hypothesis (1973) in a times series context is the estimation of the variance conditional on past information. The ARCH model, proposed by Engle (1982), is one way of specifying the conditional variance. But the assumption underlying the ARCH specification is ad-hoc. The existence of ARCH can sometimes be interpreted as evidence of misspecification. Under the assumption that a monetary policy regime is continuously changing, a time-varying-parameter (TVP) model is proposed for the monetary growth function. Based on Kalman filtering estimation of recursive forecast errors and their conditional variances, the Lucas hypothesis is tested for the United States economy (1964.1-1985.4) using monetary growth as an aggregate demand variable. The Lucas hypothesis is rejected in favor of Friedman's (1977) hypothesis: the conditional variance of monetary growth affects real output directly, not through the coefficients on the forecast error term in the Lucas-type output equation.

TI Mean Reversion in Stock Prices. A Reappraisal of the Empirical Evidence. **AU** Kim, Myung Jig; Nelson, Charles R.; Startz, Richard.

TI A Markov Model of Heteroskedasticity, Risk, and Learning in the Stock Market. **AU** Turner, Christopher M.; Nelson, Charles; Startz, Richard.

Nerlove, Marc

PD December 1988. **TI** A Bequest Constrained Economy: Welfare Analysis. **AU** Nerlove, Marc; Razin, Assaf; Sadka, Efraim. **AA** Nerlove: University of Pennsylvania. Razin, Sadka: Tel Aviv University. **SR** National Bureau of Economic Research Working Paper: 2779; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 918, 915, 921. **KW** Bequests. Debt Neutrality. Pensions. Social Security. Welfare Analysis. Altruism.

AB Bequest constraints have played a major role in discussions of debt neutrality but their welfare implications were not sufficiently dealt with in the literature. In this paper we focus on the welfare implications of bequest constraints. We found that when institutional constraints to the transfer of resources from children to their parents exists the welfare of the parents' generation may be improved by an old age security scheme. Such a scheme is justified not by income redistribution consideration, as is typically the case, but rather on pure efficiency grounds. Due to its intergenerational transfer role the social security scheme is Pareto-improving with altruistic parents if, in addition, the real income effect which tends to raise children consumption is relatively strong.

Nesetril, Jaroslav

TI Images of Rigid Digraphs. **AU** Hell, Pavol; Nesetril, Jaroslav.

Newman, Peter

PD June 1988. **TI** Common Knowledge and the Game of Red Hats. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 210; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 13. **PR** No Charge. **JE** 022, 026. **KW** Common Knowledge. Public Information. Incomplete Information. Game Theory.

AB This pedagogical piece uses the striking, well-known fable of the red hats in order to dramatize that how a group of agents knows a fact may be just as important as what that fact may be. Each of a group of n prisoners is to guess whether the unseen hat placed on his head is red; if his guess is correct he goes free, if incorrect he is beheaded; the game proceeds in a series of similar rounds. Initially, each prisoner is told privately that the number of red hats m is greater than or equal to j, for some positive integer j. If each prisoner is also told 'each prisoner knows that each prisoner knows that. each prisoner knows that m is greater than or equal to j', where the phrase 'knows that' is repeated i times, then the information m is greater than or equal to j is said to have commonality i. A theorem (probably also "well-known") shows that, for $m > 0$, all the red-hatted prisoners can go free and no-one need be executed if and only if i is greater than or equal to m - j, and that the solution will be found at round m - j + 1. Hence, if the information is public, i.e. i = infinite, then the game can always be solved, in at most n rounds.

Nilles, Delia

PD June 1988. **TI** Note sur la construction d'un indice de prix suisse pour la periode 1870-1913. **AA** Universite de Lausanne, Centre de recherches economiques appliquees. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 8805; Departement d'econometrie et d'economie politique, Universite de Lausanne BFSH1 - Dorigny, CH-1015 Lausanne / SWITZERLAND. **PG** 29. **PR** No Charge. **JE** 044, 227, 131. **KW** Principal Component Analysis. Consumer Price Index. Switzerland. Gold Standard.

AB This paper applies the method of principal component analysis to the consumer price indices (CPI) of the United States, Great Britain and France in order to derive a general consumer price index for Switzerland in the period 1870-1913 (no adequate Swiss CPI exists for these years) because in a period of generalized gold standard and free exchange we expect the prices of all countries to have the same evolution.

Nocera, Simon

TI The Potential Role of the SDR in Diversified Currency Portfolios of Central Banks. **AU** Medeiros, Carlos; Nocera, Simon.

Noll, Roger

PD September 1987. **TI** United States v. AT&T: An Interim Assessment. **AU** Noll, Roger; Owen, Bruce M. **AA** Noll: Stanford University. Owen: Economists Inc. **SR** Stanford Center for Economic Policy Research Discussion Paper: 109; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 60. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 613, 635, 612. **KW** Antitrust. AT&T. Telephone. Regulation. Monopoly.

AB The historical antitrust case against AT&T dramatically restructured one of the nation's largest, most technically sophisticated corporations. Yet unlike the major antitrust cases of the past, United States v. AT&T did not create any new competitors to the divested AT&T units in any important line of business (long distance, local service, equipment manufacturing). Instead, it simply severed the part of the company that was likely to continue to be largely a regulated monopoly from parts that the Antitrust Division thought could become competitive, implicitly relying on future entry and potential competition to do a more effective job than regulation in constraining AT&T's behavior. This paper provides an assessment of the results of the settlement of the antitrust case.

PD November 1987. **TI** United States v. AT&T: The Economic Issues. **AU** Noll, Roger; Owen, Bruce. **AA** Noll: Stanford University. Owen: Economists, Inc. **SR** Stanford Center for Economic Policy Research Discussion Paper: 114; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 56. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 612, 635, 022. **KW** Telephones. Communication. Antitrust.

AB This chapter lays out the major elements of the economic analysis behind both sides of this historic case. Because the case was settled after eleven months of trial, approximately three weeks before the trial was scheduled to end, the record of evidence and legal arguments is incomplete. The Bell System did not complete its defense, no post trial briefs were filed, and a hearing on relief issues, to be held if the Bell System lost the case, did not occur. Nevertheless, the essential elements of the two economic cases are clear from the documentary record of the litigation. In this chapter, we adopt the convention of referring to our summation of this work as either the government's or the Bell System's economic case. The reader should bear in mind, however, that the relative emphasis given here to the key economic arguments is not necessarily the same as either side would have given in its final arguments and briefs.

Novos, Ian E.

PD November 1988. **TI** Worker Preferences and Firm Structure. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8821; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 31 pages. **PR** No Charge. **JE** 514, 511, 611, 821, 022. **KW** Adverse Selection. Preferences. Firm Structure. Wage Structure.

AB Workers are often uncertain about their preferences over different jobs. This paper explores the effect of this uncertainty on firm structure. Specifically, uncertain job preferences are incorporated into a 2-period model of the labor market, with adverse selection also being relevant in the hiring process. Workers can perform one of two tasks and are able to switch tasks for the second period. The introduction of preference uncertainty results in integrated firms -- those offering workers both tasks -- dominating non-integrated firms. Workers too are shown to benefit from the move to integration. The wage structures in both the integrated and non-integrated cases are characterized and results are contrasted with previous results on the nexus between wages, worker ability and the amount of information publicly available about worker ability.

Oates, Wallace E.

PD June 1987. **TI** Economic Competition Among Jurisdictions: Efficiency Enhancing or Distortion Inducing. **AU** Oates, Wallace; Schwab, Robert. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-4; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 33. **PR** No Charge. **JE** 324. **KW** Local Governments. Government Finance. Local Industry.
AB This paper explores the normative implications of "local" competition to attract industry and income. Within a neoclassical framework, local officials set two policy variables, a tax (or subsidy) on mobile capital and a standard for environmental quality. For homogeneous jurisdictions, local choices are socially optimal; jurisdictions set a zero tax rate on capital and a standard for environmental quality such that marginal benefits equal the marginal social costs of a cleaner environment. However, where jurisdictions are not homogeneous or where they must set a positive tax rate on capital, distortions arise both in fiscal and environmental choices.

TI Does Economic Sclerosis Set in With Age. An Empirical Study of the Olson Hypothesis. **AU** Wallis, John Joseph; Oates, Wallace E.

PD April 1988. **TI** The Theory of Regulatory Federalism: The Case of Environmental Management. **AU** Oates, Wallace; Schwab, Robert. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-26; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 28. **PR** No Charge. **JE** 721, 722, 024. **KW** Environment. Externalities. Pigouvian Taxes. Incentives. Government Policy.
AB This paper explores the case for the decentralization of environmental management. We present a model of interjurisdictional competition for capital and income to assess the claim that such competition is likely to have "destructive" consequences. The model suggests the contrary: incentives for the local use of pricing instruments like Pigouvian taxes are shown to result in efficient outcomes. Moreover, an extension of the model to a many-period, overlapping-generations setting suggests that the efficiency properties of the outcome extend beyond the single-period case; local governments may, in fact, have stronger incentives to take into account the interests of future generations than do central governments.

PD May 1988. **TI** The NET Benefits of Incentive-Based Regulation: The Case of Environmental Standard Setting in the Real World. **AU** Oates, Wallace; Portney, Paul; McGartland, Albert. **AA** Oates: University of Maryland. Portney: Resources for the Future. McGartland: Office of Management and Budget. **SR** University of Maryland Department of Economics Working Paper Series: 88-33; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 23. **PR** No Charge. **JE** 613, 722. **KW** Regulation. Regulatory Policy. Incentives. Air Pollution.
AB A large literature contends that incentive-based (IB) regulatory policies can achieve the same outcome as the more traditional command-and-control (CAC) measures, but at much reduced cost. This paper suggests that these claims have been somewhat exaggerated. In a real world setting, although IB and CAC programs may be designed to achieve the same explicit standards, the "cruder" CAC regime will typically overcontrol offending activities relative to its IB counterpart which assigns a zero shadow price to any improvements beyond the standard. The additional benefits from the overcontrol under the CAC system must be netted out in any comparisons of net benefits between the CAC and IB approaches. Using data we develop on the benefits and costs of control of an important air pollutant, total suspended particulate matter, in a large metropolitan area, Baltimore, we find that after adjustments for these differential benefits, the net benefits under a sensibly designed CAC system are nearly as large as under the least-cost, IB regime.

PD June 1988. **TI** The Allocative and Distributive Implications of Local Fiscal Competition. **AU** Oates, Wallace; Schwab, Robert. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-38; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 27. **PR** No Charge. **JE** 324, 321, 022. **KW** Local Government. Fiscal Policy. Government. Government Finance.
AB This paper explores the properties of local fiscal competition for a mobile stock of national capital in a setting of many local governments that behave as "price takers" in a national capital market. In this analog to perfect competition in the private sector, we find that all local taxes become benefit taxes and that the resulting outcome is efficient. In this "benchmark case" of local finance, the local public sector effectively acts like a competitive firm that sells productive inputs to local business and final public services to local households.

Obstfeld, Maurice

PD December 1988. **TI** The Effectiveness of Foreign-Exchange Intervention: Recent Experience. **AA** University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 2796; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 431, 311, 321. **KW** Exchange Rates. Intervention. Monetary Policy.
AB Since the September 1985 Plaza Hotel announcement by the Group of Five industrial countries, a substantial realignment of exchange rates has been achieved. At the same time, foreign exchange market intervention, much of it concerted and much of it sterilized, has been undertaken on a scale not seen since the early 1970s. This paper takes a fresh look at the effectiveness of sterilized intervention in the light of recent experience. The paper concludes that sterilized intervention, in itself, has played an unimportant role in promotion exchange rate realignment. Instead, clear shifts in patterns of monetary and fiscal policy appear to have been the main medium-term

policy factors determining currency values. Over certain shorter time periods, intervention has influenced exchange markets through a signalling channel; but this signalling effect has been operative only as a result of authorities' frequent readiness to adjust monetary policies promptly to counteract unwelcome exchange market pressures. The paper makes some progress in formalizing reasons why intervention might enhance the credibility of messages that governments could convey as well through simple verbal announcements.

Ohno, Kenichi

PD August 1988. **TI** Export Pricing Behavior of Manufacturing: A U.S.-Japan Comparison. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/78; International Monetary Fund, Washington, DC 20431. **PG** 42. **PR** No Charge. **JE** 431, 631, 422, 411. **KW** Exports. Manufacturing. Pass Through.

AB Using domestic and export price data and a framework of markup over cost, pricing behavior of United States and Japanese manufacturers is compared. Major export industries in Japan have higher productivity growth and lower pass-through coefficients than American exporters, who tend to price to domestic cost. Japanese firms seem to price discriminate between domestic and export markets. Other related issues, including nonlinearity in pass-through and sectoral differences in productivity, are also examined.

Ordover, Janusz A.

PD August 1988. **TI** Antitrust Policy and High-Technology Industries. **AU** Ordover, Janusz A.; Baumol, William J. **AA** New York University. **SR** New York University Economic Research Reports: 88-25; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 54. **PR** No Charge. **JE** 611, 612, 621, 514, 022. **KW** Antitrust. Technology. R&D. Market Leader. Patents. Mergers. Knowledge.

AB In the first section of this paper, we analyze how a single firm can use its technological edge to obtain and maintain market leadership. We consider whether or not antitrust policies should restrain leading firms in their use of technology as a competitive weapon against smaller rival firms. We conclude that antitrust has some, albeit a very limited, role in ensuring that technological advantages are not abused. The following sections deal with cooperation among potential rivals in the production and diffusion of knowledge. We begin by examining patent licensing agreements, move onto research joint ventures, and then consider mergers among firms in high-technology industries. Our key policy conclusion is that antitrust laws should be applied sparingly to cooperative arrangements -- including mergers -- that are likely to stimulate the production and diffusion of knowledge.

Ostensoe, Lawrence A.

TI Firm Ownership and Competition. **AU** Mesters, Matheus; Ostensoe, Lawrence A.

Oswald, Andrew J.

TI Insider Power in Wage Determination. **AU** Blanchflower, David G.; Oswald, Andrew J.; Garrett, Mario D.

TI An Empirical Study of Unemployment and the Number of Children in Care. **AU** Carruth, Alan; Oswald, Andrew.

Otto, G.

TI Estimates of GDP, Monthly, 1962 to 1985. **AU** Guay, Richard; Milbourne, R. D.; Otto, G.; Smith, G. W.

Ouliaris, Sam

TI Testing for Cointegration Using Principle Components Methods. **AU** Phillips, P. C. B.; Ouliaris, S.

TI Asymptotic Properties of Residual Based Tests for Cointegration. **AU** Phillips, Peter C. B.; Ouliaris, S.

TI Cointegration and Tests of Purchasing Power Parity. **AU** Corbae, Dean; Ouliaris, Sam.

TI Testing a Necessary Condition for Efficiency in the Foreign Exchange Forward Market. **AU** Corbae, Dean; Ouliaris, Sam; Zender, Jaime.

TI A Random Walk Through the Gibson Paradox. **AU** Corbae, Dean; Ouliaris, Sam.

TI Spurious Regressions and Tests for Cointegration. **AU** Park, Joon; Ouliaris, Sam; Choi, Buhmsoo.

PD July 1988. **TI** Testing for a Unit Root in the Presence of a Maintained Trend. **AU** Ouliaris, Sam; Park, Joon Y.; Phillips, Peter C. B. **AA** Ouliaris: University of Maryland. Park: Cornell University. Phillips: Yale University. **SR** University of Maryland Department of Economics Working Paper Series: 88-37; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 39. **PR** No Charge. **JE** 211, 212. **KW** Unit Root. Time Series. Stationarity.

AB This paper develops statistics for detecting the presence of a unit root in time series data against the alternative of stationarity. Unlike most existing procedures, the new tests allow for deterministic trend polynomials in the maintained hypothesis. They may be used to discriminate between unit root nonstationarity and processes which are stationary around a deterministic polynomial trend. The tests allow for both forms of nonstationarity under the null hypothesis. Moreover, the tests allow for a wide class of weakly dependent and possibly heterogenously distributed procedures. We illustrate the use of the new tests by applying them to a number of models of macroeconomic behavior.

Owen, Bruce M.

TI United States v. AT&T: An Interim Assessment. **AU** Noll, Roger; Owen, Bruce M.

TI United States v. AT&T: The Economic Issues. **AU** Noll, Roger; Owen, Bruce.

Paarsch, Harry J.

PD January 1988. **TI** Labour Stoppages and the Theory of the Offset Factor: Evidence from the British Columbian Lumber Industry. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-02; 997-1873 East Mall Vancouver, BC V6T 1W5. **PG** 36. **PR** $.20 per page Canadian to other than educational institutions. **JE** 824, 825, 831. **KW** Inventories. Productivity. Labor Stoppage. Labor Strike.

AB One method of estimating losses resulting from labor stoppages is to multiply the total number of man days lost during disputes by the average product of workers in the industry. I call such an estimate "average output lost" -- AOL. This statistic is attractive because it can be easily calculated using information typically available from government agencies, but the measure has obvious flaws. For example, the behavior of other firms in the industry who are not involved in disputes is ignored. Moreover, when output is durable, the impact of stoppages upon consumption is unknown, since inventories can be used as buffers. To assess the importance of these and other considerations in measuring the impact of labor stoppages, an alternative empirical framework is developed and then implemented using aggregate time series data from the British Columbian lumber industry.

Palfrey, Thomas R.

PD December 1988. **TI** A Mathematical Proof of Duverger's Law. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 688; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 23. **PR** No Charge. **JE** 025, 026. **KW** Strategic Voting. Political Parties. Elections. Game Theory. Politics. Two Party System.

AB A famous stylized fact in comparative politics, Duverger's Law, is that electoral systems based on single ballot winner-take-all plurality voting will produce bipartisan competition. This paper presents an equilibrium model of elections in which this stylized fact emerges a logical implication of rational strategic voting behavior by individuals in a large heterogeneous electorate.

Panagariya, Arvind

PD April 1987. **TI** Scale Economies as an Explanation of Some Stylized Facts of Growth. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-1; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 26. **PR** No Charge. **JE** 411, 021, 111. **KW** General Equilibrium. Open Economy. International Trade. Economic Growth. Scale Economies.

AB This paper considers a three-good, two-country, general-equilibrium model. The three goods are manufactures, agriculture and services. The model is driven entirely by scale economies which are assumed to exist in manufactures. It is shown that services, a nontraded good, must be more expensive in the country with higher per capita income. The model also predicts that as per capita income increases, we should expect the productivity in commodities relative to services to rise, the share of agriculture in output to fall and that of manufacturers and services to rise, and the allocative share of labor to fall in agriculture and rise in manufactures and services.

PD May 1988. **TI** Excise Tax Evasion: A Welfare Cum Crime Theoretic Analysis. **AU** Panagariya, Arvind; Narayana, Aluri. **AA** Panagariya: University of Maryland. Narayana: National Institute of Public Finance and Policy, New Delhi. **SR** University of Maryland Department of Economics Working Paper Series: 88-29; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 19. **PR** No Charge. **JE** 916, 323, 024. **KW** Tax Evasion. Welfare Costs. Tax Policy. Taxes.

AB Drawing upon the literature on illegal activities, especially Bhagwati and Hansen (1973), a simple model of excise-tax evasion is presented. We take explicit account of the risk and uncertainty associated with an illegal act. Firms choose the camouflaging costs optimally. In small, open economy as well as closed economy models, it is shown that the presence of tax evasion is welfare reducing. A more strict enforcement policy leads to an improvement in welfare while increases in penalties have ambiguous welfare effects. The latter result obtains due to the fact that higher penalties result in higher proportionate expenditures on camouflaging illegal activities.

PD August 1988. **TI** Administrative Costs, Optimal Taxation, and the Tax Base. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-45; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 31. **PR** No Charge. **JE** 323, 024. **KW** Tax Rates. Tax Base.

AB Assuming that revenue-collection costs rise with the expansion of the tax base, this paper addresses the issue of simultaneous determination of optimal tax base and optimal tax rates. The paper employs a continuum-of-goods model characterized by CES preferences on the part of the consumer. It is shown that if total administrative costs are exogenously fixed, optimal tax base consists of commodities which satisfy the cost constraint and have the maximum combined expenditure share in the no-tax equilibrium. If administrative costs are allowed to vary, optimality requires that the marginal excess burden of the last dollar raised by increasing the tax rate be equal to the marginal excess burden of the last dollar raised by expanding the tax base. Interestingly, an increase in the revenue requirement leads to an expansion or contraction of the optimal tax base as the elasticity of substitution in consumption is smaller or larger than unity.

Park, Byeong

PD December 1988. **TI** Comparision of Data-Driven Bandwidth Selectors. **AU** Park, Byeong; Marron, J. S. **AA** Park: University of Seoul. Marron: University of North Carolina. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-215; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 26. **PR** No Charge. **JE** 211. **KW** Cross-Validation. Bandwidth Selection. Density Estimation. Kernel Estimators. Asymptotic Theory.

AB This paper provides a comparison of several promising data-driven methods for selecting the bandwidth of a kernel density estimator. The methods compared are: least squares cross-validation, biased cross-validation and a plug-in rule. The comparison is done by asymptotic rate of convergence to the optimum and a simulation study. It is seen that the plug-in bandwidth is usually most efficient when the underlying density is sufficiently smooth, but is less robust when there is not enough smoothness present. We believe the plug-in rule is the best of those currently available, but there is still room for improvement.

Park, Joon Y.

PD February 1988. **TI** Spurious Regressions and Tests for Cointegration. **AU** Park, Joon; Ouliaris, Sam; Choi, Buhmsoo. **AA** Park: Cornell University. Ouliaris: University of Maryland. Choi: Yale University. **SR** University of Maryland Department of Economics Working Paper Series: 88-20; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 45. **PR** No Charge. **JE** 211. **KW** Spurious Regression. Co-Integration. Monte

Carlo. Linear Regression. Deterministic Trends.
AB The purpose of this paper is to clarify the notion of spurious regressions in econometrics and to suggest new procedures to test for the presence of co-integration. Our framework is broad, accommodating deterministic time polynomial trends as well as weakly dependent and heterogeneous innovation sequences. In regressions with general integrated processes, we show that the quality of the least squares coefficient estimates varies continuously in parallel to the correlation between the regressand and the regressors. Co-integration is considered as the limit case, where we have perfect linear correlation and the least squares regression becomes authentic. In contrast, hypothesis tests based on standard procedures is shown to yield totally spurious results unless co-integration is present.

TI Testing for a Unit Root in the Presence of a Maintained Trend. **AU** Ouliaris, Sam; Park, Joon Y.; Phillips, Peter C. B.

Patel, Urjit

TI Transactions Costs or the Costs of Doing Business: Empirical Estimates for some Developing Countries. **AU** Lal, Deepak Kumar; Patel, Urjit.

Pearce, David W.

PD 1988. **TI** Sustainable Development in the Sahel: Two Essays. **AU** Pearce, David W.; Markandya, Anil; Barrett, Scott; Heady, Christopher J. **AA** Pearce, Markandya, Barrett: University College London. Heady: Researcher, London School of Economics. **SR** University College London Discussion Paper: 88-14; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PR** No Charge. **JE** 112, 121, 713, 721. **KW** Sahel. Economic Development. Prices. Natural Resources. Agriculture. Developing Countries.
AB There is growing evidence that the future of the Sahel depends on the influence which management of its natural resources will have on the agricultural sector. The focus is on 'sustainable development', a view of the development process which emphasises the role of natural environments and resources and the need to consider the sustainability of investments, incentives and institutions. The first essay investigates the concept of sustainable development in terms of the requirement that the stock of natural capital-soil, biomass, water - be held broadly constant in order to secure equitable access to the resource base in the future. It then asks whether past development efforts in the Sahel have been sustainable. The second essay looks at one issue in sustainable development: the relationship between price incentives and natural resource management. Although farmer responses to changed producer prices have been well documented, little is known about the effect of "getting prices right" on natural resources. Increased producer prices may actually harm sustainable development if they induce extensification in agriculture through the clearing of forests or cultivation on steep land.

PD December 1988. **TI** The Interaction of Implicit and Explicit Contracts in Repeated Agency. **AU** Pearce, David; Stacchetti, Ennio. **AA** Pearce: Yale University. Stacchetti: Stanford University. **SR** Yale Cowles Foundation Discussion Paper: 892; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 29. **PR** $2.00. **JE** 022, 026. **KW** Principal-Agent Theory. Contracts. Supergames. Dynamic Models.
AB Traditional agency theory assumes that the principal has no more information about the agent's actions than the enforcement authorities have. This is unrealistic in many settings, and in repeated models, additional information possessed by the principal changes the nature of the problem. Such information can be used in implicit, self-enforcing contracts between principal and agent, that supplement the usual explicit contracts. This paper studies the way in which the two kinds of contract are combined in constrained efficient equilibria of the agency supergame. The agent's compensation is comprised of both guaranteed payments and voluntary bonuses from the principal. We give a simple characterization of the composition of remuneration in the optimal dynamic scheme.

Pencavel, John

PD January 1987. **TI** The Determination of Wages, Employment, and Work Hours in an Economy with Centralized Wage-Setting: Sweden, 1950-83. **AU** Pencavel, John; Holmlund, Bertil. **AA** Pencavel: Stanford University. Holmlund: Trade Union Institute for Economic Research; Stockholm. **SR** Stanford Center for Economic Policy Research Discussion Paper: 92; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 40. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 824, 831, 832. **KW** Trade Unions. Unemployment. Sweden.
AB The growth in unemployment in Western Europe is widely viewed among observers there to be the region's most pressing current economic problem. A popular explanation for this unemployment is that, at least in part, it is the consequence of trade unions pushing up wages above market-clearing levels and of firms being induced to cut back on employment and hours of work. This general characterization of the determination of wages, employment, and work hours lies behind the empirical work in this paper on the labor market in Sweden's manufacturing sector. In fact we find employment to be relatively sensitive to wages and the greater volatility of employment compared with real wages over the business cycle is traced to the nature of the confederation of trade unions' objectives. In other words, our estimates provide support for the view that the increase in energy prices in the 1970s would have had less of a negative impact on employment if unions had tolerated greater wage reductions.

PD September 1987. **TI** The Classical Unemployment Hypothesis and International Comparisons of Labor Market Behavior. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 110; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 41. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 122, 824, 131, 133. **KW** Employment. Wages. Labor Markets.
AB The contrasting employment experiences of the major industrialized countries over the last 25 years or so has been an issue of major relevance for economic policy. That is, while the percentage of the adult population at work for pay rose by over five percent in the United States, Canada, and Sweden between 1960 and 1984, it fell by about 10 percent in Italy, Germany, and France. As a consequence, Western Europe has been burdened with widespread unemployment of an extent not witnessed since the 1930s. The most common explanation

offered for these different employment experiences maintains that North American labor markets are characterized by much greater real wage flexibility than those in Western Europe. In fact, the movements of these variables between 1957 and 1984 tend not to be consonant with this popular explanation.

Perry, Martin K.

PD May 1988. **TI** Vertical Integration and Industry Growth. **AU** Perry, Martin; Groff, Robert. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 45; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 22. **PR** No Charge. **JE** 022, 611, 511, 514. **KW** Vertical Integration. Industrialization. Specialization.
AB One of the most notable conjectures about vertical integration is that firms in growing industries will specialize in one particular stage, buying inputs from other specialized firms and having specialized distributors market their products to consumers. This paper examines this conjecture in the context of a model where firms choose whether to specialize in either the upstream stage (producing the input) or the downstream stage (producing the final product), or to integrate and do both. Some support for the conjecture is found using this model.

TI Renegotiation and Specific Performance. **AU** Lewis, Tracy R.; Perry, Martin K.; Sappington, David E. M.

PD August 1988. **TI** A Pseudo-Judo Model and Its Implications for Technology Licensing. **AU** Perry, Martin K.; Besanko, David. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 46; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 26. **PR** No Charge. **JE** 022, 611, 621. **KW** Technology. Innovations. Competition.
AB The commonly used model to define competition between firms yields unrealistic outcomes when applied to the situation in which firms have differing marginal costs of production. This paper posits a new, but simple, notion of competition for such circumstances. This model is useful to analyze the license revenues on a cost-reducing innovation created by an R&D laboratory. These revenues are much higher if competition between the licensed and unlicensed firms is characterized by the model proposed rather than the traditional model.

Persson, Torsten

PD January 1989. **TI** Exchange Rate Variability and Asset Trade. **AU** Persson, Torsten; Svensson, Lars E. O. **AA** University of Stockholm. **SR** National Bureau of Economic Research Working Paper: 2811; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 431, 441, 411, 442, 311. **KW** Exchange Rates. International Trade. Foreign Investment. Portfolios.
AB In discussions about different international monetary arrangements it is often maintained that exchange rate variability has a negative influence on international trade and foreign investment. This paper addresses one specific aspect of this general issue, namely the effect of exchange rate variability on capital flows and international portfolio diversification. More precisely, we examine how different monetary policies -- and among those, policies that aim at stabilizing exchange rates -- determine the risk characteristics of nominal assets, and how these risk characteristics determine international portfolio composition and trade in assets, when international asset markets are incomplete.

Pestieau, Pierre

TI Optimal Public Sector Employment Policy with Endogenous Involuntary Unemployment. **AU** Boadway, Robin W.; Marchand, Maurice; Pestieau, Pierre.

Phelps, Edmund

PD August 1988. **TI** A Working Model of Slump and Recovery from Disturbances to Capital-Goods Demand in a Closed Non-Monetary Economy. **AA** Columbia University. **SR** International Monetary Fund Working Paper: WP/88/82; International Monetary Fund, Washington, DC 20431. **PG** 16. **PR** No Charge. **JE** 023, 131. **KW** Business Cycle. Adjustment Costs. Macroeconomic Model. Non-Monetary Economy.
AB Certain long swings in activity may involve one or more non-monetary mechanisms not yet studied. Unlike the fundamentally classical "real" theory of the business cycle refined in this decade, the emerging line of "real" models called structuralist, such as the model here, hinges on the long time required for complete adjustment of implicit labor contracts to real shocks disturbing labor demand. The structuralist model here describes the depression and recovery resulting from shocks in time preference, the public debt, or labor supply whose impact drives up the real rate of interest and drives down the real demand-price of investment goods.

Phillips, Peter C. B.

PD April 1987. **TI** Testing for Cointegration Using Principle Components Methods. **AU** Phillips, P. C. B.; Ouliaris, S. **AA** Phillips: Yale University. Ouliaris: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-16; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 41. **PR** No Charge. **JE** 211. **KW** Time Series. Co-Integration. Monte Carlo. Principal Components.
AB This paper studies co-integrated systems of multiple time series which are individually well described as integrated processes (with or without a drift). Necessary and sufficient conditions for co-integration are given. These conditions form the basis for a class of diagnostic statistical procedures designed to test for co-integration. The procedures rely on principal components methods. They are simple to employ and they involve only the standard normal distribution. Monte Carlo simulations reported in the paper indicate that the new procedures provide simple and useful diagnostics for the detection of co-integration. Some empirical applications to macroeconomic data are conducted and discussed.

PD July 1987. **TI** Asymptotic Properties of Residual Based Tests for Cointegration. **AU** Phillips, Peter C. B.; Ouliaris, S. **AA** Phillips: Yale University. Ouliaris: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-5; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 52. **PR** No Charge. **JE** 211. **KW** Co-Integration. Unit roots. Time Series. Asymptotic Theory. Brownian Motion.
AB This paper develops an asymptotic theory for residual based tests for co-integration. These tests involve procedures that are designed to detect the presence of a unit root in the residuals of (co-integrating) regressions among the levels of

economic time series. Attention is given to the augmented Dickey Fuller (ADF) test and the Z(alpha) and Z(t) unit root tests recently proposed by Phillips (1987). Two new tests are also introduced, one of which is invariant to the normalization of the cointegrating regression. All of these tests are shown to be asymptotically similar and simple representations of their limiting distributions are given in terms of standard Brownian motion.

TI Testing for a Unit Root in the Presence of a Maintained Trend. **AU** Ouliaris, Sam; Park, Joon Y.; Phillips, Peter C. B.

PD December 1988. **TI** Reflections on Econometric Methodology. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 893; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 42. **PR** $2.00. **JE** 212. **KW** Methodology. Econometrics. Empirical Research. Structural Relationships.
AB General issues about the methodology of empirical econometric research are discussed. It is argued that the most successful paradigms for applied work are the ones that have a capacity to survive and to evolve into more useful forms as these are needed. Paradigms that embrace progressive modeling principles, such as those espoused by David Hendry, seem most amenable to this criterion. It is also argued that econometric theory has a large role to play in helping us to understand the strengths and the weaknesses of a methodology and to codify what its prescriptions entail. The time series methodology of David Hendry is considered in some detail. It is shown that the Hendry methodology comes remarkably close to achieving an optimal inference procedure for long run structural relationships even though it is conducted on a single equation basis. The findings indicate that the methodology may be improved further to achieve results that are equivalent to optimal estimation.

Pingle, M.

PD November 1988. **TI** Restoring The First Welfare Theorem for Overlapping Generations Economies. **AU** Pingle, M.; Tesfatsion, L. **AA** University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8823; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 43 pages. **PR** No Charge. **JE** 021, 024, 521. **KW** Welfare Theorem. Overlapping Generations. Trade Intermediation. Arbitrage Conditions. Corporate Firms.
AB This paper suggests that the apparent failure of the First Welfare Theorem for overlapping generations economies results from the incompleteness of the no-arbitrage conditions routinely used to define competitive equilibrium for such economies. A key type of productive activity-trade intermediation-is not taken into account. It is conjectured that the First Welfare Theorem will hold for overlapping generations economies once the potential for profitable brokerage activity by corporate firms is properly recognized in the definition for competitive equilibrium. As support for this conjecture, it is shown that all stationary competitive equilibria for the Samuelson (1958) overlapping generations economy are Pareto-efficient if corporate brokerage firms owned by shareholder-consumers are permitted to arbitrage away profit opportunities on intergenerational trades.

Pissarides, Christopher A.

PD July 1988. **TI** On-the-Job Search: Some Empirical Evidence. **AU** Pissarides, Chris A.; Wadsworth, Jonathan. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 317; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 20. **PR** No Charge. **JE** 813, 824. **KW** Job Search. Job Tenure. Labor Supply. Employment. Labor Force.
AB In this paper we consider evidence from the Labor Force Survey concerning job search by employed workers. We do not find evidence for the proposition that unemployed workers accept jobs temporarily to search on the job. Job tenure is a strong influence on search but more likely because short-tenure workers are still learning the job. Workers in low-wage industries are more likely to search than other workers, as are workers in occupations with higher vacancy rates.

PD October 1988. **TI** Unemployment Consequences of an Aging Population: An Application of Insider-Outsider Theory. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 327; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 19. **PR** No Charge. **JE** 821, 826, 831, 832, 833. **KW** Insiders. Age Structure. Wages. Unemployment. Unions. Bargaining.
AB In this paper wages and employment are determined by bilateral decentralized bargains between unions and firms. The economy is completely unionized and equilibrium is symmetric. We show that if unions attach more weight to the wishes of old workers than to the wishes of young workers the wages of old workers are always higher than the wages of young workers. Their unemployment is lower only if they cannot get the higher wages outside their own firm. A rise in the relative number of old workers reduces unemployment and wages of all workers.

Pitt, Mark M.

PD September 1988. **TI** The Determinants of Rice Variety Choice in Indonesia. **AU** Pitt, Mark M.; Sumodiningrat, Gunawan. **AA** Pitt: University of Minnesota. Sumodiningrat: Universitas Gadjah Mada, Indonesia. **SR** University of Minnesota Economic Development Center Bulletin: 88-3; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 43. **PR** Free. **JE** 711, 712, 715, 716. **KW** Rice. Indonesia. Farming. Agriculture.
AB This paper investigates the determinants of rice seed variety choice in Indonesia with respect to a meta-profit function. Varietal choice is modeled as depending on the profitability of high yielding varieties of seed relative to traditional varieties of seed, the schooling of cultivators and factors associated with yield uncertainty and risk aversion. Careful attention is paid to the stochastic structure of the estimated simultaneous equations switching regimes model. The maximum likelihood method applied to Indonesian farm-level data is complicated by endogenous regressors and heteroskedastic errors. Adoption of high yielding varieties was found to be positively associated with its relative profitability, the likelihood of flooding, quality of irrigation conditional on its effect on relative profit, and the availability of credit, and

negatively associated with land owned and the likelihood of drought. Schooling was not found to be a significant determinant of variety choice.

Plott, Charles R.

PD October 1988. **TI** Marshallian vs. Walrasian Stability in an Experimental Market. **AU** Plott, Charles R.; George, Glen. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 683; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 51. **PR** No Charge. **JE** 021, 022, 215. **KW** Stability. Disequilibrium. Economic Experiments. Dynamic Models. Auction Theory.
AB Twelve markets were studied. All markets had downward sloping supply functions created by Marshallian-type external economics. The conditions were such that the Marshallian theory of dynamics gave predictions opposite to the Walrasian theory of dynamics. The market organizations studied were double auction, sealed bid/offer and (secant) tatonnement. In all cases the Marshallian theory of dynamics was the better model.

Polemarchakis, Herakles M.

TI Asset Markets and Equilibrium Processes. **AU** Dutta, Jayasri; Polemarchakis, Herakles.

TI Observability and Optimality. **AU** Geanakoplos, J. D.; Polemarchakis, H. M.

Porter, David P.

TI Allocating Uncertain and Unresponsive Resources. **AU** Banks, Jeffrey S.; Ledyard, John O.; Porter, David P.

Porter, Robert

TI Random Reservation Prices and Bidding Behavior in OCS Drainage Auctions. **AU** Hendricks, Kenneth; Porter, Robert; Spady, Richard H.

Portney, Paul

TI The NET Benefits of Incentive-Based Regulation: The Case of Environmental Standard Setting in the Real World. **AU** Oates, Wallace; Portney, Paul; McGartland, Albert.

Potscher, Benedikt

PD April 1987. **TI** A Uniform Law of Large Numbers for Dependent and Heterogeneous Data Processes. **AU** Potscher, Benedikt; Prucha, Ingmar. **AA** Potscher: University of Technology Vienna. Prucha: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-2; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 13. **PR** No Charge. **JE** 211. **KW** Consistent. Nonlinear Models. Heterogeneity. Asymptotic Theory.
AB Uniform laws of large numbers constitute important tools in proving consistency of estimators in nonlinear econometric models. A uniform law of large numbers used widely in the recent econometric literature is that of Hoadly (1971). It turns out that the assumptions maintained by this theorem (or some modified versions of it) are severe in that they preclude the analysis of many estimators and models of interest in economics. This paper introduces an alternative uniform law of large numbers for dependent and heterogeneous data processes that is based on a quite general and easy-to-verify catalog of assumptions.

Prucha, Ingmar

TI A Uniform Law of Large Numbers for Dependent and Heterogeneous Data Processes. **AU** Potscher, Benedikt; Prucha, Ingmar.

TI A Note on the Estimation of Non-Symmetric Dynamic Factor Demand Models. **AU** Madan, Dilip; Prucha, Ingmar.

PD September 1987. **TI** On the Computation of Estimators in Systems With Implicitly Defined Variables. **AU** Prucha, Ingmar; Nadiri, M. Ishaq. **AA** Prucha: University of Maryland. Nadiri: New York University. **SR** University of Maryland Department of Economics Working Paper Series: 88-7; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 8. **PR** No Charge. **JE** 212, 214. **KW** Gradient. Optimization. Factor Demand. Estimation. Algorithm.
AB Estimators are often defined as the maximizing values of some objective function. This note introduces an algorithm for the computation of such estimators for the parameters of a system of equations where some of the variables are implicitly defined by an auxiliary set of equations. Systems of equations of this kind have been considered in the recent factor demand literature as well as in other areas. The algorithm is a gradient procedure. To keep the computational burden manageable it calculates the gradient from analytic expressions rather than by numerical differentiation.

Puffert, Douglas

TI The Financial Impact of Social Security by Cohort. **AU** Boskin, Michael; Puffert, Douglas.

Quandt, Richard E.

TI Output Targets, Input Rationing and Inventories. **AU** Goldfeld, Stephen M.; Quandt, Richard E.

TI Waiting Lists and Disequilibrium Modelling of the Housing Market in Poland, 1955-1986. **AU** Charemza, Wojciech; Quandt, Richard E.

Quirmbach, Herman C.

PD October 1988. **TI** Opportunism, Relationship-Specific Assets, and Contract Length. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8816; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 31 pages. **PR** No Charge. **JE** 022, 026, 514, 511, 611. **KW** Opportunism. Firm Assets. Contracts. Vertical Integration.
AB This paper studies how the level of relationship-specific assets ("RSA") in an ongoing relationship affects opportunism and contract length. Across the extremes, the results show flexibility advantages make short-term contracts preferable for low RSA; while opportunism problems make long-term contracts at least as good as short-term for high RSA. However, increases in RSA need not favor long-term contracts "monotonically". Under reasonable conditions, higher RSA can induce parties to behave less opportunistically, causing short-term contracts to gain relative to long-term for RSA levels in a middle range.

Raa, Thijs ten

PD November 1988. **TI** Secondary Products and the Measurement of Productivity Growth. **AU** Raa, Thijs ten; Wolff, Edward N. **AA** Raa: New York University and Tilburg University. Wolff: New York University and NBER. **SR** New York University Economic Research Reports: 88-34; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, NY 10003. **PG** 50. **PR** No Charge. **JE** 222, 825, 621, 226. **KW** Productivity. Input-Output Analysis. Secondary Products.
AB The paper considers alternative treatments of secondary products in input-output systems and analyzes their implications for the measurement of productivity growth at both the sectoral and overall level. Two standard models of secondary products are used: (1) the commodity technology model and (2) the industry technology model. It is argued that the first model correctly relates sectoral and overall levels of productivity growth; the second model, though more conventional, aggregates sectoral levels to a biased estimate of overall productivity growth. Estimates of the two measures are provided using United States 85-sector input-output data for 1967, 1972, and 1977. The empirical results indicate that the alternative assumptions do not lead to significantly different estimates of commodity-level and industry-level productivity growth over this period for the full economy but do for several sectors. Moreover, changes in secondary production did not contribute significantly to the decline in productivity growth over this period but secondary production was found to have a much lower rate of productivity growth than primary production.

Ramaswamy, Krishna

TI The Valuation of Corporate Fixed Income Securities. **AU** Kim, In Joon; Ramaswamy, Krishna; Sundaresan, Suresh.

Ramsey, James B.

PD October 1988. **TI** Economic and Financial Data as Nonlinear Processes. **AA** New York University. **SR** New York University Economic Research Reports: 88-30; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, NY 10003. **PG** 68. **PR** No Charge. **JE** 211, 132. **KW** Nonlinear Models. Financial Data. Forecasting.
AB This paper has two related objectives. The first is to explore the reasons for considering nonlinear models, besides the obvious wish to improve forecasting. The main ideas is to indicate the simple ways in which fairly complex behavior can be modeled. The emphasis is on the benefits to the analysis of economic and financial data. The second objective is to examine the extent to which nonlinear phenomena exist in economic and financial data. In this context, some new tools for the analysis and detection of nonlinear phenomena are introduced and briefly discussed. In particular, tests for time irreversibility are presented. The Appendix contains a discussion of some of the technical terms used in the literature on chaos and qualitative dynamics.

TI A Linear Statistical Analysis of "Tic-By-Tic" Stock Market Data. **AU** Yuan, Hsiao Jane; Ramsey, James B.

PD December 1988. **TI** Characterization of the Time Irreversibility of Economic Time Series: Estimators and Test Statistics. **AU** Ramsey, James B.; Rothman, Philip. **AA** New York University. **SR** New York University Economic Research Reports: 88-39; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 47. **PR** No Charge. **JE** 131, 211, 133. **KW** Time Reversibility. Nonlinear Models. Time Series. Business Cycle.
AB The concept of time reversibility is defined and discussed. The implications of time irreversibility, for both theoretical and empirical work, are shown. A time domain test of time reversibility is introduced and its properties are explored. The test is applied to several economic time series with the result that these series are indeed time irreversible. These results suggest that the business cycle is asymmetric and that policy attempts to stabilize the business cycle may actually be destabilizing in practice.

Rath, Kali

PD March 1988. **TI** Dominated Strategies, Axioms and Solutions to Games. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 205; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 16. **PR** No Charge. **JE** 026. **KW** Strategies. Game Theory. Solutions. Equilibrium.
AB By deleting a dominated strategy of one player in a game, the dominance relationship among strategies of other players might change and hence the solutions of two games (where one is obtained from the other by deleting a dominated strategy) can be quite different if players do not adopt dominated strategies. This observation leads us to reject some of the criteria proposed in the literature pertaining to solutions of games as unreasonable. Another set of axioms, which seem more appealing, is proposed and the existence of solution concepts satisfying this set of axioms is established.

Rauch, James E.

PD 1989. **TI** Modelling the Informal Sector Formally. **AA** University of California, San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 89-4; Department of Economics, D-008; University of California at San Diego; La Jolla, CA 92093. **PG** 28. **PR** No Charge. **JE** 112, 821, 511, 514, 616. **KW** Informal Sector. Firm Size. Entrepreneur. Wage Differential. Credit Market.
AB The theoretical characterization of formal-informal sector dualism by labor-market dualism is integrated with its empirical characterization by size dualism by supposing that the minimum formal sector wage is not enforced for firms less than a certain size. A firm's size varies directly with the talent of its entrepreneur-manager, and the choice between formal and informal sector entrepreneurship is determined endogenously. It is then shown that the size gap between the smallest formal sector firm and largest informal sector firm varies directly with the formal-informal sector wage differential, which in turn is shown as expected to increase the further is the minimum wage above the market-clearing wage. The additional effects of credit market dualism are also explored, and in particular the paper examines the effect on the informal sector interest rate of credit market reforms discussed in the literature on LDC financial policies.

Rausser, Gordon C.

PD September 1985. **TI** Important Developments in Economics. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of

Agricultural and Resource Economics (CUDARE) Working Paper: 406; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 7p. **PR** $5.00. **JE** 011, 712. **KW** Agriculture. Economic Developments. Rational Expectations.
AB Professor Pope has undertaken an almost impossible task of determining what developments in economics will lead to significant applications in agricultural economics. One development that reappears throughout the paper is the concept of rational expectations.

PD June 1986. **TI** Modeling Alternative Trade and Macroeconomic Scenarios: Implications for U.S. Agriculture. **AU** Rausser, Gordon C.; Stamoulis, Kostas G.; Love, H. Alan; Chalfant, James A. **AA** Department of Agricultural and Resource Economics, University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 495; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 64p. **PR** $12.80. **JE** 411, 133, 711, 712, 023. **KW** International Trade. Macroeconomics. Econometrics. Agriculture. Agricultural Policy. Business Cycles.
AB This paper focuses on the extent to which the agricultural sector is influenced by macroeconomic conditions and by international economic conditions. It is shown that these conditions have an important, though not exclusive, role in explaining the pattern of boom and bust cycles in the agricultural sector. Combined with the setting of agricultural policy instruments, these external forces are a major determinant of both farm sector incomes and government outlays.

TI Overshooting of Agricultural Prices. **AU** Stamoulis, Kostas G.; Rausser, Gordon C.

TI Arbitrage Conditions, Interest Rates, and Intertemporal Commodity Price Relationships. **AU** Kitchen, John; Rausser, Gordon C.

PD June 1988. **TI** The Macroeconomic Dimension of Agriculture and Food Policy Reform. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 490; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 39p. **PR** $7.80. **JE** 121, 023, 713. **KW** Macroeconomic Policy. Agricultural Policy. Overshooting. Market Linkages. Transactions Costs. Developing Countries.
AB There are many complications in evaluating agricultural and food policy reform. This paper will examine one in particular -- the macroeconomic risk nations face in the implementation of food and agricultural policy reform. In all of the recent studies of agricultural trade liberalization and agricultural policy reform, little if any attention has been paid to the macroeconomic environment that might exist during the implementation phase of various proposals. This is indeed surprising because the origins of many farm policies can be traced directly to the macroeconomic environment. Moreover, the dynamic adjustment paths that would evolve following the implementation of particular reform proposals would be heavily dependent upon macroeconomic conditions, such as the level of real interest rates and exchange rates, the nature of monetary and fiscal policies -- whether expansionary or deflationary -- and so on.

TI Flexible Public Policy: The Case of the United States Wheat Sector. **AU** Love, H. Alan; Rausser, Gordon C.

PD October 1988. **TI** Dynamic Welfare Analysis and Commodity Futures Markets Overshooting. **AU** Rausser, Gordon C.; Walraven, Nicholas. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agriculture and Resource Economics (CUDARE) Working Paper: 491; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 26p. **PR** $5.20. **JE** 313, 311, 021. **KW** Welfare Analysis. Futures Market. Overshooting. General Equilibrium. Commodities. Dynamic Models.
AB Linkages among markets forces inefficiencies in one market to be transmitted to related markets. Nowhere is this more likely to be evident than in commodity futures markets. Since these markets reflect price expectations, differential information flows in the various markets will generally result in varying speeds of adjustment to causal forces. The basic Dornbusch model will be extended in this paper to examine the linkages among three groups of markets: interest rates, exchange rates, and commodity markets. Price expectations, as represented by futures markets, will be emphasized. Unlike the Dornbusch model, in which all goods prices except exchange rates are presumed to be sticky, interest rates and agricultural prices will be allowed to be "flexible". Futures contracts for agricultural commodities are homogeneous, frequently traded, and (mostly) storable and, thus, are presumed to be flexible and governed by instantaneous arbitrage.

Raut, Lakshmi Kanta

PD January 1989. **TI** Capital Accumulation, Income Distribution and Endogenous Fertility in an Overlapping Generations General Equilibrium Model. **AA** University of California, San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 89-2. **PG** 32. **PR** No Charge. **JE** 021, 111, 841, 226, 023. **KW** General Equilibrium. Fertility. Savings. Tax Policy. Overlapping Generations Model. Taxation.
AB This paper studies the intertemporal relationships among population growth, income distribution, intergenerational social mobility, skill composition of the labor force, and household income in an overlapping generations general equilibrium model that aggregates household decisions regarding fertility, savings and investment in human capital of children. It shows that as a consequence of endogenous fertility, the equilibrium path attains steady state from the second generation. Income tax transfer, child taxation, and social security taxation policies that can be devised to affect these variables are also analyzed. The model provides a structural explanation for the inverse household income-child quantity and negative child quality-quantity relationships that are observed in developing countries. It also shows that group interests may hinder the emergence of perfect capital markets with private initiatives.

PD January 1989. **TI** Effects of Social Security on Fertility and Saving: An Overlapping Generations Model. **AA** University of California, San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 89-3; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PG** 28. **PR** No Charge. **JE** 021, 111, 915, 023, 226. **KW** General Equilibrium. Fertility. Savings. Social Security. Overlapping Generations Model.

AB This paper studies the general equilibrium effects of various social security programs on the rates of population growth and capital accumulation within an overlapping generations framework with endogenous fertility and savings. It also shows that if the level of exogenously given intergenerational transfers of income from old to young generations or the cost of child care is low, a competitive equilibrium follows a path of overpopulation and capital accumulation in a modified Pareto optimal sense; a social security program in such a case is Pareto improving. However, if the level of intergenerational transfers of income is endogenous, competive equilibrium rate of population growth and capital accumulation is Pareto optimum. A fully funded system is not neutral if it is financed by child-taxes. It also shows that unlike in the case of exogenous fertility where competitive equilibrium attains steady-state only asymptotically, when fertility is endogenous it attains a unique globally stable steady state in the second generation.

Razin, Assaf

PD October 1988. **TI** Liberalization of the International Capital Markets: Effects on Taxation, Cost of Public Funds and Income Redistribution. **AU** Razin, Assaf; Sadka, Efraim. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 32-88; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, Tel-Aviv, ISRAEL. **PG** 27. **PR** No Charge. **JE** 441, 322, 411. **KW** Capital Mobility. Public Goods. Capital Market. Capital Flows. Income Redistribution.

AB International-capital market integration has become a key policy issue in the prospective integration of Europe of 1992. In this context this paper provides a theoretical analysis of the effects of relaxing restrictions on the international flow of capital on the fiscal branch of government: the optimal provision of public goods, the structure of taxation and income redistribution policies. The major findings are: (a) income from investment abroad should be taxed at the same rate as income from domestic sources; (b) the cost of public funds falls and the supply of public goods rises if restrictions on international capital flows are relaxed; and (c) the amount of income redistributions, specifically the value of the demogrant, increases with the international-capital market liberalization.

TI A Bequest Constrained Economy: Welfare Analysis. **AU** Nerlove, Marc; Razin, Assaf; Sadka, Efraim.

Rennhack, Robert

PD August 1988. **TI** Capital Mobility and Monetary Policy in Columbia. **AU** Rennhack, Robert; Mondino, Guillermo. **AA** Rennhack: International Monetary Fund. Mondino: Yale University. **SR** International Monetary Fund Working Paper: WP/88/77; International Monetary Fund, Washington, DC 20431. **PG** 26. **PR** No Charge. **JE** 431, 311, 131, 121, 112. **KW** Financial Markets. Exchange Rates. Money Stock.

AB This paper estimates a model of financial markets in Colombia to examine: 1) the authorities' control over domestic interest rates and the money stock; and 2) the effects of the crawling peg exchange rate policy on exchange rate expectations and domestic interest rates. The authorities appeared to possess some control over the money stock in the short run, mostly because of the existence of capital controls, but most of this control was eroded once asset demands adjust to their desired banks. The expected rate of depreciation is not closely linked to the crawling peg.

Rey, Patrik

PD March 1988. **TI** Vertical Restraints and Producers' Competition. **AU** Rey, Patrik; Stiglitz, Joseph. **AA** Rey: INSEE, Paris. Stiglitz: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 13; Department of Economics/Woodrow Wilson School of Public and International Affairs Princeton University, Princeton, NJ 08544. **PG** 18. **PR** No Charge. **JE** 612, 616, 022, 024. **KW** Vertical Integration. Nash Equilibrium. Imperfect Substitutes. Competition.

AB This paper examines the rationale for vertical restraints. It shows that there are important circumstances under which these restrictions have significant anti-competitive effects. The paper focuses on the consequences of exclusive territorial arrangements among the retailers of two products which are imperfect substitutes. Such arrangements are shown to increase consumer prices; under plausible conditions the increase in consumer prices is sufficiently large to more than offset the deleterious effects from "double marginalization" resulting from reduced competition among retailers. The imposition of exclusivity provisions is part of a Nash equilibrium among producers. These results hold whether there are or are not franchise fees.

Riordan, Michael H.

PD September 1987. **TI** Hierarchical Control and Investment Incentives in Procurement. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 107; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 56. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 322, 616, 321. **KW** Asymmetric Information. Monitoring. Government Spending.

AB In a procurement environment with limited commitment and asymmetric information about uncertain production cost, monitoring by the government might disadvantageously discourage unobservable reliance investment by a contractor. Without monitoring, equilibrium reliance investment minimizes expected cost. In contrast, the government optimally distorts observable reliance investment above its productively efficient level, and monitoring beneficially promotes this distortion.

PD December 1987. **TI** Sectoral Shocks and Structural Unemployment. **AU** Riordan, Michael; Staiger, Robert. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 124; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 34. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 824, 822, 821. **KW** Unemployment. Signalling. Heterogeneity. Worker Quality. Employment. Sectoral Shocks.

AB When current employers have more information about worker quality than do potential employers, sectoral shocks cause structural unemployment. That is, some workers laid off from an injured sector remain unemployed despite the fact that they are of sufficient quality to be productively employed in an expanding sector at the prevailing wage. Moreover, sectoral unemployment rates are not monotonic in the severity of sectoral shocks due to the interaction of layoff activity and hiring activity. Finally, equilibrium employment decisions are not constrained Pareto efficient, and can be improved by a policy of adjustment assistance.

PD January 1988. **TI** Second Sourcing. **AU** Riordan, Michael; Sappington, David E. M. **AA** Riordan: Stanford University. Sappington: Bell Communications Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 125; 100 Encina ·Commons, Stanford University, Stanford, CA 94305. **PG** 38. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 114, 322. **KW** Defense. Defense Spending. Military Spending.

AB In a multistage model of defense procurement, it is shown that a second source of production is often of limited value. In many instances, second sourcing will result in strictly less expected welfare than is generated by sole sourcing.

TI Incentives for Cost Reduction under Price Cap Regulation. **AU** Cabral, Luis M. B.; Riordan, Michael H.

Roberts, John M.

PD January 1988. **TI** A Theory of the Effect of Overtime Use on Marginal Cost. **AA** Board of Governors of the Federal Reserve. **SR** Stanford Center for Economic Policy Research Discussion Paper: 128; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 28. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 611, 131, 133. **KW** Market Power. Cartel. Fluctuations. Passthrough.

AB Recent events have suggested that fluctuations in monopoly power can have important effects on the economy. The varying ability of Oil and Petroleum Exporting Countries to cartelize oil production over the past fifteen years has been associated with fluctuations in output and inflation, and the temporary breakdown of the cartel in 1986 preceded a surge in output growth and a drop in inflation. It is likely that the United States economy in 1987 benefited from the decline in profit margins represented by the incomplete passthrough by foreign firms of the fall in the value of the dollar. This foreign firms' acceptance of a reduction in their profit margins constitutes a reluctance to fully exploit their market power. The consequent welfare gain to the United States may have been reflected in 1987s combination of low unemployment and moderate inflation.

TI The Economics of Modern Manufacturing: Products, Technology and Organization. **AU** Milgrom, Paul; Roberts, John.

PD October 1988. **TI** Evidence on Price Adjustment Costs in U.S. Manufacturing Industry. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Economic Activity Section Working Paper Series: 89; Economic Activity Section, Federal Reserve Board, Washington, D.C. 20551. **PG** 24. **PR** No Charge. **JE** 134, 631, 133, 023. **KW** Price Rigidity. Inflation. Business Cycles. Adjustment Costs. Product Markets.

AB Quadratic costs of adjusting prices have important implications for the effect of nominal disturbances on real quantities and can provide a foundation for a monetary theory of the business cycle. Previous studies of quadratic adjustment costs for prices have focussed on aggregate relationships and have not been able to distinguish whether labor markets or product markets are the source of nominal rigidity (Rotemberg, 1982b). In this paper, I test for the importance of quadratic price adjustment costs in United States manufacturing industry at the two-digit level of disaggregation. I look for price adjustment costs conditional on wages, so I am able to focus on the product market as a source of nominal rigidity. I find that quadratic price adjustment costs are statistically significant in only five of the twenty industries I examine, suggesting either that sluggish price adjustment takes some other form, or that product markets are not an important source of nominal rigidity.

Robertson, Donald

PD September 1988. **TI** The Occupational Choice of British Children. **AU** Robertson, Donald; Symons, James S. V. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 325; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 36. **PR** No Charge. **JE** 821, 824, 851, 812. **KW** Labor Supply. Earnings. Occupation. England.

AB We study the relationship between expected lifetime income and the occupational choice decisions of a panel of British children by constructing consistent estimates of occupational earnings functions. The choice probabilities respond to income with an elasticity of about 2.5. Socio-economic background is also a strong explanatory variable: having a father professional has about the same effect on the child becoming a professional as an extra 20 per cent in reading and maths ability scores. The behavior of the children seems to accord well with economic theory.

Robinson, James C.

PD December 1987. **TI** Unsafe Working Conditions, Industrial Relations, and Productivity in U.S. Manufacturing. **AU** Robinson, James C.; Rothwell, Geoffrey. **AA** Robinson: University of California, Berkeley. Rothwell: Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 112; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 19. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 833, 825. **KW** Occupational Safety. Work Hazards. Injuries. Industrial Relations.

AB In joint production models of occupational safety and health, worker injury rates are positively associated with rates of output, holding constant the quantity of other inputs. But in industrial relations models, injury rates are negatively associated with productivity, because of their damages to worker morale and attitudes toward management. With 1977 data on 404 manufacturing industries we estimate a translog joint production function with an industrial relations index. The industrial relations effects of injuries dominate the joint production effects. Characteristics of negative industrial relations account for a six percent decline in technical efficiency in our sample.

Robinson, Marc S.

TI The Effect of Taxes on Inventories. **AU** Haltiwanger, John C.; Robinson, Marc S.

TI Government Saving, Capital Formation and Wealth in the United States, 1947-1985. **AU** Boskin, Michael; Robinson, Marc S.; Huber, Alan.

Robles, Barbara

TI Credit, Money and Production: Empirical Evidence. **AU** Betancourt, Roger; Robles, Barbara.

Roemer, John E.

PD January 1989. **TI** Whither Socialism. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 333; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 8. **PR** No Charge. **JE** 052, 027. **KW** Public Ownership. Principal-Agent Theory. Socialism.

AB This short paper was prepared for a panel discussion at the December 1988 AEA meetings. Twentieth century socialism has discovered the principal agent problem, with a vengeance, in three forms: the planner is not a perfect agent of the public, the firm manager is not a perfect agent of the planner, and the workers are not perfect agents of the firm manager. It is argued that the experience of publicly owned firms in advanced capitalist countries indicates that the future for socialism is not so bleak as the current advocates of privatization suggest.

Romer, David

PD April 1988. **TI** What Are the Costs of Excessive Deficits. **AA** Princeton University and National Bureau of Economic Research. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 14; Department of Economics/Woodrow Wilson School of Public and International Affairs Princeton University, Princeton, NJ 08544. **PG** 57. **PR** No Charge. **JE** 321, 024, 023. **KW** Budget Deficits. Deficit Spending. Government Expenditures. Welfare Costs.

AB This paper addresses the question of whether a period of large government budget deficits, such as that experienced by the United States in the 1980s, is likely to be highly costly to the economy. It finds that if present and future taxpayers are less than perfectly linked and if the capital stock is too low, then redistributions from future to present generations -- as would be caused by a policy of temporarily low taxes and high deficits -- directly reduce social welfare. The welfare costs of deficits through this channel are likely to be large even if the links between present and future generations are nearly perfect. By contrast, other commonly emphasized costs of deficits, in particular costs through crowding out of capital (because of either imperfect links between generations or liquidity constraints) or through an irregular pattern of taxes, appear to be of moderate size for plausible parameter values.

Rosen, Harvey S.

TI Testing the Rationality of State Revenue Forecasts. **AU** Feenberg, Daniel R.; Gentry, William; Gilroy, David; Rosen, Harvey S.

TI A Note on Revenue Forecasting During the Dukakis Administration. **AU** Feenberg, Daniel R.; Rosen, Harvey S.

TI Intertemporal Analysis of State and Local Government Spending: Theory and Tests. **AU** Holtz, Eakin Douglas; Rosen, Harvey S.

TI The "Rationality" of Municipal Capital Spending: Evidence from New Jersey. **AU** Holtz, Eakin Douglas; Rosen, Harvey.

Rosenberg, Nathan

PD February 1987. **TI** Science, Technology and Economic Growth. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 101; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 25. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 621, 111, 122. **KW** Economic Growth. Technology. Competitiveness. Innovation.

AB My primary concern in this paper will be with certain aspects of the so-called high technology industries that are, I believe, highly relevant to America's economic growth prospects. The most direct way in which these aspects are relevant to economic growth is that they directly affect the country's ability to maintain or to improve its competitiveness in world markets. The term "science" appears in the title of this paper because the high technology industries with which I will be primarily concerned are, by common definition, those in which scientific inputs loom large - whether these inputs are measured in terms of the number of scientifically trained personnel or expenditures upon research and development (R&D). The two features that I will be mostly concerned with are: (1) The increasing extent and the increasing speed with which certain new technological capabilities are being transferred, not only between industries, but among countries as well; and (2) the rising costs of development (the D of R&D) in the high technology industries.

TI The Japanese Firm as an Innovation Institution. **AU** Aoki, Masahiko; Rosenberg, Nathan.

PD January 1988. **TI** Can Americans Learn to Become Better Imitators. **AU** Rosenberg, Nathan; Steinmueller, W. Edward. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 117; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 27. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 122, 112, 051, 621, 611. **KW** Technology. Japan. United States. Industrial Organization.

AB Despite American success in previous historical eras at imitating the technology and organizational structure of industrial rivals in other nations, there is mounting evidence that its capacity to absorb and adapt rivals' advantages to its own purposes has diminished in recent years. While these concerns are voiced with regard to a number of nations, the recent success of Japanese firms has been noteworthy and deserves special attention.

Rosenbloom, Joshua

TI Marshallian Factor Market Externalities and the Dynamics of Industrial Localization. **AU** David, Paul; Rosenbloom, Joshua.

Rosenthal, Robert W.

PD April 1988. **TI** Duopoly with Both Ruin and Entry. **AU** Rosenthal, Robert W.; Spady, Richard. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 49; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 25. **PR** No Charge. **JE** 022, 611, 514, 026. **KW** Duopoly. Repeated Game. Free Entry. Bankruptcy. Corporate Strategy.

AB Duopoly is modeled here as a prisoner's dilemma repeated in continuous time. Firms wish to maximize discounted flows of dividend payments, which are paid when capitalization levels permit. A firm is ruined when its capitalization falls below zero, but each ruined firm is immediately replaced by a new entrant. Attempting to ruin a rival is not necessarily an attractive strategy here, since the post-entry game against the new rival may be a less favorable one. On the other hand, firms that are close to ruin have little to lose by playing aggressively, hence are attractive targets of aggression themselves. Equilibria are constructed that reflect these considerations.

Ross, Thomas W.

PD November, 1988. **TI** Raising an Army: A Positive Theory of Military Recruitment. **AA** Carleton University. **SR** Stanford Hoover Institute Working Paper in Economics: E-88-46; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 67. **PR** No Charge. **JE** 114, 812. **KW** Conscription. Military Army. National Defense. Soldiers.
AB This essay deals with the question of how nations choose whether to supply manpower to their militaries by attracting volunteers or with conscription. A simple model of the comparative costs of the two systems is constructed and it is argued that the relative costs will influence the choices made. Although some costs, like training, housing and feeding soldiers will be common to the two alternatives, each also has its own peculiar costs. Predictions about which system will be chosen can then be made based on the levels of a variety of independent variables that will alter the relative costs. Results of empirical tests of some of the theory's predictions provide some support for the theory.

Rossi, Nicola

TI Italian Household Demand for Monetary Assets and Government Debt. **AU** Bollino, Andrea; Rossi, Nicola.

Rotemberg, Julio J.

TI Exchange Rate Dynamics with Sticky Prices: The Deutsche Mark, 1974-1982. **AU** Giovannini, Alberto; Rotemberg, Julio J.

PD November 1988. **TI** Sovereign Debt Buybacks Can Lower Bargaining Costs. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 2767; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 443, 432, 411. **KW** Debtor Nation. Debt Crisis. Buybacks. Bargaining.
AB I develop two models in which debt repurchases by highly indebted sovereign nations are advantageous for all parties. The models are based on the idea that when sovereign debts are large, bargaining costs are large. Creditors spend more resources convincing the debtor that they are tough when they have more at stake. Also, the sanctions which are sometimes triggered when bargaining fails to produce an agreement are larger when debts are larger. For both these reasons buybacks, which reduce the face value of the outstanding debt, can be beneficial. The resulting equilibria are constrained Pareto Optima. But, donors who subsidize buybacks increase overall welfare more than donors who make direct gifts. I also argue that Bulow and Rogoff (1988)'s empirical evidence on buybacks is consistent with my models.

Rothman, Philip

TI Characterization of the Time Irreversibility of Economic Time Series: Estimators and Test Statistics. **AU** Ramsey, James B.; Rothman, Philip.

Rothwell, Geoffrey

TI Unsafe Working Conditions, Industrial Relations, and Productivity in U.S. Manufacturing. **AU** Robinson, James C.; Rothwell, Geoffrey.

TI Risk and Reactor Safety Systems Adoption. **AU** Dubin, Jeffrey; Rothwell, Geoffrey.

Roubini, Nouriel

PD November 1988. **TI** Offset and Sterilization Under Fixed Exchange Rates with an Optimizing Central Bank. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 2777; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 311. **KW** Federal Reserve. Central Bank. Domestic Credit. Monetary Policy.
AB See addtional entry under this author and title.

PD November 1988. **TI** Current Account and Budget Deficits in an Intertemporal Model of Consumption and Taxation Smoothing. A Solution to the "Feldstein-Horioka Puzzle". **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 2773; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 441, 431, 322, 411, 023. **KW** Consumption. Taxation. Capital Mobility. Budget Deficits. Current Account.
AB See addtional entry under this author and title.

PD January 1989. **TI** Offset and Sterilization Under Fixed Exchange Rates with an Optimizing Central Bank. **AA** Economic Growth Center. **SR** Yale Economic Growth Center Discussion Paper: 568. **PG** 35. **PR** $2.00 + postage. **JE** 431, 411, 311, 023. **KW** Exchange Rates. Sterilization Policies. Monetary Policy.
AB The traditional approach to the estimation of the offset and sterilization equations can be criticized for the ad-hoc specification of the reaction function of the monetary authorities and the endogeneity of the domestic credit and foreign reserve variables in the estimated equations. The paper proposes an alternative analytical model where the sterilization and offset equations are derived from an explicit maximization problem solved by the monetary authority.

PD January 1989. **TI** Current Account and Budget Deficits in an Intertemporal Model of Construction and Taxation Smoothing. A Solution to the Feldstein-Horioka Puzzle. **AA** Economic Growth Center. **SR** Yale Economic Growth Center Discussion Paper: 569. **PG** 52. **PR** $2.00 + postage. **JE** 431, 411, 321, 023. **KW** Current Account. Budget Deficits. Capital Mobility. Fiscal Policy. Infinite Horizon.
AB This paper presents an infinite horizon model of consumption and taxation "smoothing" that implies a simple relation between current accounts, budget deficits, investment rates and transitory output shocks. It is argued that such a model could explain the "Feldstein-Horioka puzzle" of the apparent lack of international capital mobility. Traditional regressions of the savings rate on the investment rate, as performed in the literature, are shown to be incorrect tests of the hypothesis of capital mobility because they do not control for the independent role of budget deficits and temporary output shocks in the current account and savings equations. Empirical tests of the model for a sample of 18 OECD countries present good evidence that international capital markets are

widely integrated and that the "Feldstein-Horioka puzzle" might be explained by the important role of fiscal deficits in the determination of the current account and the saving behavior.

Rudebusch, Glenn D.

TI Ex Ante Turning Point Forecasting with the Composite Leading Index. **AU** Diebold, Francis X.; Rudebusch, Glenn D.

Rudin, Jeremy R.

PD May 1988. **TI** Information, Predictability and Welfare in a Market for a Long-Lived Asset. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-12; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 37. **PR** $.20 per page Canadian to other than educational institutions. **JE** 621, 522, 313. **KW** Technology. Investment. Asset Returns.

AB A change in the technology that investors use to obtain signals about future payouts of an asset may have different effects when the asset will make multiple future payouts (is "long-lived") than when it will make only one payout (is "short-lived"). For example, changes that improve the predictability of the return on a short-lived asset may worsen the predictability of the return on a long-lived asset; changes that are welfare reducing when assets are short-lived may be welfare improving when assets are long-lived. These results arise because the return on a long-lived asset depends on its future sale price as well as the future payout.

Sadka, Efraim

TI Liberalization of the International Capital Markets: Effects on Taxation, Cost of Public Funds and Income Redistribution. **AU** Razin, Assaf; Sadka, Efraim.

TI A Bequest Constrained Economy: Welfare Analysis. **AU** Nerlove, Marc; Razin, Assaf; Sadka, Efraim.

Safra, Zvi

TI Ascending Bid Auctions with Behaviorally Consistent Bidders. **AU** Karni, Edi; Safra, Zvi.

TI Ascending Bid Auctions with Behaviorally Consistent Bidders. **AU** Karni, Edi; Safra, Zvi.

TI Behaviorally Consistent Optimal Stopping Rules. **AU** Karni, Edi; Safra, Zvi.

TI Rank-Dependent Probabilities. **AU** Karni, Edi; Safra, Zvi.

Sah, Raaj Kumar

PD April 1988. **TI** Sources of Technological Divergence Between Developed and Less Developed Economies. **AU** Sah, Raaj Kumar; Stiglitz, Joseph E. **AA** Sah: Yale University. Stiglitz: Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 22; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 49. **PR** No Charge. **JE** 123, 111, 112, 041. **KW** Growth Rates. Developing Countries. Income Levels. Multiple Equilibrium.

AB This paper explores alternative explanations of why it is that the growth rates and income levels of various countries have not converged very fast -- if at all. The paper focuses on multiple social equilibrium; circumstances under which some societies may be characterized by high levels of innovation, and others by low levels, are identified. Which of the possible multiple equilibria an economy exhibits is partly a consequence of the economy's historical path. The sources of the positive feedbacks which give rise to multiple equilibria are discussed.

Saharia, A. N.

TI Optimal Information Systems for the Seller of a Search Good. **AU** Barron, Terence M.; Saharia, A. N.

Saijo, Tatsuyoshi

PD June 1988. **TI** Contribution Mechanism for Public Good Provision is not Incentive Compatible: A Reexamination. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 282; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 23. **PR** No Charge. **JE** 024, 022. **KW** Public Good. Rationality. Incentives. Revealed Preferences.

AB The contribution mechanism, that provides a public good through the voluntary donations of participants, is individual rational but not Pareto optimal. It is well known that there is no incentive compatible mechanism that is individual rational and Pareto optimal (Hurwicz' Theorem). Since the contribution mechanism does not require Pareto optimality, it might be incentive compatible. The answer to this is no. We also know that the level of public good provided by the contribution mechanism falls short of its Pareto optimal levels. Our second result claims more than that. If a private good is a normal good, then the level of public good is no more than that of the level of the contribution mechanism if a participant does not reveal his true preferences, assuming that other participants are sincere. Finally, it is shown that there is no incentive compatible mechanism that attains an allocation no worse than the contribution mechanism.

Salanie, Bernard

PD November 1988. **TI** Wage and Price Adjustment in a Multimarket Disequilibrium Model. **AA** Service de la Conjoncture INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8812; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 36. **PR** No Charge. **JE** 131, 023, 022, 212. **KW** Disequilibrium. Maximum Likelihood. Dynamic Models. Keynesian Economics.

AB The estimation of wage and price adjustment equations rests heavily on the use of tension variables that aim at capturing the disequilibria in the labor and goods markets. Disequilibrium models therefore provide a natural way of endogeneizing these tension variables. This paper uses the pseudo-maximum likelihood method to estimate jointly a two-market disequilibrium model and a wage and price adjustment block where excess effective demands retroact on price and wage growth. The introduction of wage and price dynamics clearly enriches the properties of the model; in particular, it greatly decreases the efficiency of a Keynesian policy.

Salkever, David S.

TI Altruism, Rivalry and Crowding-Out in the Nonprofit Firm's Supply of Charity Services: The Case of Hospitals. **AU** Frank, Richard G.; Salkever, David S.

Sandmann, Klaus

PD October 1988. **TI** Zur Berwertung von Caps und Floors. **AU** Sandmann, Klaus; Sondermann, Dieter. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-98; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 48. **PR** No Charge. **JE** 026, 313.
AB Paper in German.

Sappington, David E. M.

TI Second Sourcing. **AU** Riordan, Michael; Sappington, David E. M.

TI Monitoring Quality Provision in Regulated Markets. **AU** Lewis, Tracy R.; Sappington, David E. M.

TI Renegotiation and Specific Performance. **AU** Lewis, Tracy R.; Perry, Martin K.; Sappington, David E. M.

TI An Informational Effect When Regulated Firms Enter Unregulated Markets. **AU** Lewis, Tracy; Sappington, David E. M.

TI Oversight of Long-Term Investment by Short-Lived Regulators. **AU** Lewis, Tracy R.; Sappington, David E. M.

Schiller, Christian

PD August 1988. **TI** Government Pay Policies and Structural Adjustment. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/73; International Monetary Fund, Washington, D.C. 20431. **PG** 42. **PR** No Charge. **JE** 822, 824, 322. **KW** Federal Employees. Fringe Benefits. Employment. Earnings.
AB The paper provides an overview of the main elements of pay systems that are typically used to remunerate government employees and, with reference to the experience of developed and developing countries, discusses structural issues frequently arising in the formulation of government pay policies: (1) the role of fringe benefits in the compensation system; (2) the pros and cons of a greater merit orientation in the pay system and of special pay schemes designed to remunerate staff at the professional and managerial level; and (3) factors determining internal pay differentials with special emphasis on the compressing effect of flat amount cost of living adjustments.

Schmeidler, David

TI Fixed Preferences and Changing Tastes (The Economics of Fashion). **AU** Karni, Edi; Schmeidler, David.

Scholz, John T.

TI A Behavioral Approach to Compliance: OSHA Enforcement's Impact on Workplace Accidents. **AU** Gray, Wayne B.; Scholz, John T.

Schultz, T. Paul

PD January 1989. **TI** Women's Changing Participation in the Labor Force: A World Perspective. **AA** Economic Growth Center. **SR** Yale Economic Growth Center Discussion Paper: 571. **PG** 37. **PR** $2.00 + postage. **JE** 112, 813, 826, 121. **KW** Economic Development. Employment. Developing Countries.
AB This paper describes the contemporary composition of the labor force during economic development, for men and women, by firm or family, employment, and by industry. The increasing fraction of all men and all women employed by firms is decomposed into that related to the changing sectoral mix of employment across national economies, and that related to changes in the proportion of employment by firms within sectors. Regressions are reported to describe how each of these sources of employment change are associated with income per adult across countries at different levels of development, and within countries over time. Women have increased their share in the labor force in all regions except for South and West Asia and Africa. They have made slower progress from family to firm employment in Latin America than observed in other regions. Women's differential progress in assuming a more equal role with men in the labor force, and particularly their employment outside of the family warrants more detailed analysis by economists.

Schwab, Robert M.

TI Economic Competition Among Jurisdictions: Efficiency Enhancing or Distortion Inducing. **AU** Oates, Wallace; Schwab, Robert.

TI The Theory of Regulatory Federalism: The Case of Environmental Management. **AU** Oates, Wallace; Schwab, Robert.

TI Some Applications of the Theory of Rationing to Problems in Public Economics. **AU** Goodspeed, Timothy; Schwab, Robert.

TI A Haig-Simons-Tiebout Comprehensive Income Tax. **AU** Hulten, Charles R.; Schwab, Robert M.

TI The Allocative and Distributive Implications of Local Fiscal Competition. **AU** Oates, Wallace; Schwab, Robert.

TI The Impact of Environmental Regulation on Industry Location Decisions: The Motor Vehicle Industry. **AU** McConnell, Virginia; Schwab, Robert.

Schwartz, Abba

PD November 1988. **TI** Tenure: Can it be Explained by an Efficiency Wage Argument. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 36-88; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, Tel-Aviv, ISRAEL. **PG** 24. **PR** No Charge. **JE** 824, 825, 821, 833. **KW** Tenure. Efficiency Wage. Rational Decisions. Turnover.
AB A two-period efficiency wage model is constructed to show that granting tenure may be a rational choice by a firm. The driving force is the idea that tenure has value to the employee who receives it. Consequently the turnover cost of tenured employees is lower than that of untenured. The difference is the benefit the firm draws from granting tenure. The cost involves the firm's commitment to employ the tenured employees at the second period. The fraction of tenured employees in the firm's labor force is the variable whose optimal choice maximizes the present value of profits.

Schwert, G. William

PD December 1988. **TI** Why Does Stock Market Volatility Change Over Time. **AA** University of Rochester. **SR** National Bureau of Economic Research Working Paper: 2798; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 131. **KW** Stocks. Stock Returns. Fluctuations.

Stock Markets. Stock Volatility.
AB This paper analyzes the relation of stock volatility with real and nominal macroeconomic volatility, financial leverage, stock trading activity, default risk, and firm profitability using monthly data from 1857-1986. An important fact, previously noted by Officer'1973(, is that stock return variability was unusually high during the 1929-1940 Great Depression. Moreover, leverage has a relatively small effect on stock volatility. The amplitude of the fluctuations in aggregate stock volatility is difficult to explain using simple models of stock valuation.

PD December 1988. **TI** Tests for Unit Roots: A Monte Carlo Investigation. **AA** University of Rochester. **SR** National Bureau of Economic Research Technical Paper: 73; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 211. **KW** Unit Roots. ARIMA. Models. Stationarity. Monte Carlo.
AB Recent work by Said and Dickey (1984,1985), Phillips (1987), and Phillips and Perron (1988) examines tests for unit roots in the autoregressive part of mixed autoregressive-integrated-moving average (ARIMA) models (tests for stationarity). Monte Carlo experiments show that these unit root tests have different finite sample distributions than the unit root tests developed by Fuller (1976) and Dickey and Fuller (1979,1981) for autoregressive processes. In particular, the tests developed by Phillips (1987) and Phillips and Perron (1988) seem more sensitive to model misspecification than the high order autoregressive approximation suggested by Said and Dickey (1984).

Scotchmer, Suzanne

PD January 1989. **TI** Novelty and Disclosure in Patent Law. **AU** Scotchmer, Suzanne; Green, Jerry. **AA** Scotchmer: University of California, Berkeley and Hoover Institution. Green: Harvard University. **SR** Stanford Hoover Institute Working Paper in Economics: E-89-2; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 50. **PR** No Charge. **JE** 621, 522, 022. **KW** R & D. Patents. Innovation. Patent Law.
AB The stringency of the novelty requirement in patent law affects the pace of innovation because it affects the amount of technical information that is disclosed among firms. It also affects ex ante profitability of research. We compare weak and strong novelty requirements from the standpoint of social efficiency. We also ask how our answer depends on the rule that determines which firm gets a patent when two firms have patents pending on the same technology. The possible rules are "first to invent", which applies in the United States and Canada, or "first to file", which applies everywhere else.

Seidmann, Daniel J.

PD November 1988. **TI** Transactions/List Pricing. **AA** Tel Aviv University and Trinity College, Dublin, Ireland. **SR** Tel Aviv Foerder Institute for Economic Research Working Papers: 38-88; Department of Economics, Tel-Aviv University, Ramat Aviv 69978, Tel-Aviv, ISRAEL. **PG** 33. **PR** No Charge. **JE** 026, 611, 022. **KW** Dynamics. Private Information. Capital. Revelation Principle.
AB Suppose that a representative downstream firm must buy relationship-specific capital before an upstream monopolist is privately informed of its unit costs. We show that the upstream firm will write a contract before the downstream firm invests, specifying a maximum (list) price which may be discounted when costs are low. This model therefore rationalizes transactions/list pricing: a prevalent mode of inter-firm trading. We use our results to explain Stigler and Kindahl's findings on medium-term price dynamics.

PD February 1989. **TI** The Order Stock Distinction: A Bargaining Approach. **AA** Tel Aviv University and Trinity College, Dublin. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 3-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 27. **PR** No Charge. **JE** 026, 022. **KW** Sunk Costs. Bargaining. Idiosyncracy. Standardized Goods.
AB Firms produce idiosyncratic goods to order, and standardized goods to stock. Our explanation involves the seller sinking its production costs when it produces to stock. If the good is idiosyncratic, then sinking production costs disadvantages the seller by reducing the equilibrium price. If the good is standardized then its price is bid up by competition between potential buyers; so sinking production costs does not disadvantage the seller. We formalize this intuition in an alternating-offer bargaining game.

PD February 1989. **TI** Inefficient Bundling by Tying Good Oligopolists. **AA** Tel Aviv University and Trinity College. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 4-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 25. **PR** No Charge. **JE** 022, 612, 611. **KW** Efficient Market. Differentiated Products. Product Differentiation. Inefficiency. Antitrust.
AB The stylized facts of litigated bundling cases are that tying does not affect the tied good market structure and that there are a small number of firms active on the tying good market. We demonstrate that these facts are consistent with a product differentiation account of pure bundling which implies that trade is inefficient. Furthermore, pure bundling may then violate existing United States antitrust laws.

Sen, Partha

PD December 1988. **TI** Tariffs, Capital Accumulation, and the Current Account in a Small Open Economy. **AU** Sen, Partha; Turnovsky, Stephen. **AA** Sen: University of Illinois. Turnovsky: University of Washington. **SR** National Bureau of Economic Research Working Paper: 2781; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 411, 422. **KW** Intertemporal Model. Tariffs. Expectations. Capital Accumulation. Temporary Shocks.
AB This paper analyzes the effects of a tariff in an intertemporal optimizing model, emphasizing the role of capital accumulation. Three types of increases in the tariff rate are considered: (i) unanticipated permanent; (ii) unanticipated temporary; (iii) anticipated permanent. There are two main general conclusions to be drawn from the analysis. The first is that the introduction (or increase) of a tariff is contractionary, both in the short run and in the long run. In particular, employment is reduced both in the short run and in the long run, so that there is no significant intertemporal tradeoff, as obtained by previous authors. The second major conclusions stems from the fact that the steady state depended upon the initial stocks of the assets. As a consequence, a temporary

tariff, by altering these initial conditions for some later date when the tariff is removed, leads to a permanent effect on the economy.

Shack, Marquez Janice

TI Regional Labor Markets, Cost-of-Living Differentials, and Migration. **AU** Gabriel, Stuart A.; Shack, Marquez Janice; Wascher, William L.

Shapiro, Carl

TI Horizontal Mergers: An Equilibrium Analysis. **AU** Farrell, Joseph; Shapiro, Carl.

TI Horizontal Mergers: An Equilibrium Analysis. **AU** Farrell, Joseph; Shapiro, Carl.

TI Optimal Patent Length and Breadth. **AU** Gilbert, Richard; Shapiro, Carl.

TI Optimal Contracts with Lock-in. **AU** Farrell, Joseph; Shapiro, Carl.

Shapiro, Perry

TI A Constitutional Choice Model of Compensation for Takings. **AU** Fischel, William; Shapiro, Perry.

Sharkey, William W.

PD July 1988. **TI** Supportability of Network Cost Functions. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 41; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 16. **PR** No Charge. **JE** 213, 612. **KW** Cost Function. Neural Network. Supply.

AB This paper considers a network supply problem in which flows between any pair of nodes are possible. It is assumed that users place a value on connection to other users in the network, and (possibly) on access to an external source. Cost on each link is an arbitrary concave function of link capacity. The objective is to study coalitional stability in this situation, when collections of flows can be served by competing suppliers. In contrast to other network games, this approach focuses on the cost of serving flows rather than the cost of attaching nodes to the network. The network is stable if the derived cost function is supportable.

PD August 1988. **TI** Game Theoretic Modeling of Increasing Returns to Scale. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 42; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 73. **PR** No Charge. **JE** 021, 022, 612, 026. **KW** Increasing Returns. Natural Monopoly. Cooperative Game. General Equilibrium.

AB This paper surveys the analysis, by means of cooperative game theory, of economies in which there are increasing returns to scale. In the first section, necessary and sufficient conditions for the existence of a core of a general equilibrium economy are considered. The most important result is Scarf's finding that whenever the aggregate production possibility set fails to be a convex cone (exhibiting constant returns to scale) there exists an economy using that production set for which the core is empty. When various restrictions on preferences are imposed, more positive results on core existence are obtained by several authors. In the second section, the partial equilibrium approach to increasing returns production, which developed along with the natural monopoly literature, is surveyed. The close relationship between the general equilibrium and partial equilibrium approaches is emphasized.

Sheehan, Dennis P.

TI What Constrains Managers Who Own Large Blocks of Stock. **AU** Holderness, Clifford G.; Sheehan, Dennis P.

Shibuya, Hiroshi

PD September 1988. **TI** Tourism in East Caribbean Countries. **AU** Shibuya, Hiroshi; Ye, Susan. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/83; International Monetary Fund, Washington, DC 20431. **PG** 40. **PR** No Charge. **JE** 121, 113, 112. **KW** Tourism. Caribbean. Government Policy.

AB This paper studies recent developments in tourism in the East Caribbean countries (ECC) and reviews government policies to support tourism. The paper also presents a model to explain the movements of tourist arrivals to the region during 1970-86. The estimated model is used to project future tourist arrivals in the ECC.

Shiller, Robert J.

TI The Behavior of Home Buyers in Boom and Post Boom Markets. **AU** Case, Karl E.; Shiller, Robert J.

PD December 1988. **TI** Initial Public Offerings: Investor Behavior and Underpricing. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 2806; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 311. **KW** Investment. Underpricing. Stockbrokers.

AB A questionnaire survey of investors in initial public offerings (IPO's) was undertaken to learn about patterns of investor behavior that might be relevant to theories of their underpricing. Respondents were asked for their perception of the allocation process, their concern with stockbroker or underwriter reputation, their theories of IPO underpricing, and their communications and information sources. Results are interpreted as supporting the notion that there is an element of truth in some existing theories of IPO underpricing, and also suggesting different hypotheses. The impresario hypothesis is that underwriters deliberately underprice to obtain publicity and promote enthusiasm. Other hypotheses suggested by the results are an investor risk perception hypothesis and a fairness-relationship hypothesis.

Shoven, John B.

TI Taxation and the Cost of Capital: An International Comparison. **AU** Bernheim, B. Douglas; Shoven, John.

PD October 1986. **TI** The Tax Consequences of Share Repurchases and Other Non-Dividend Cash Payments to Equity Owners. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper: 89; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 37. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 521, 522, 323. **KW** Corporations. Dividends. Tax Incentives. Shareholders.

AB The financial behavior of corporations has changed greatly in the last ten years. Previously most of the cash that stockholders received from corporations took the form of dividends, and economists' models that have dividends as the ultimate determinant of equity values were not far off the mark.

This paper documents how much things have changed. There are strong tax incentives for nondividend cash payments between corporations and shareholders. These payments can take the form of a repurchase by the company of its own shares, or the acquisition of the shares in another company. The paper shows that dividends per unit equity have not fallen. Rather, the acquisition of equity has allowed firms to retain relatively constant debt equity ratios in the past five years despite strong equity markets. Firms have chosen to absorb equity and issue debt, roughly holding leverage constant, and have thus saved large amounts of taxes.

TI Comparable Worth in a General Equilibrium Model of the U.S. Economy. **AU** Beider, Perry; Bernheim, B. Douglas; Fuchs, Victor; Shoven, John B.

TI Economic Issues in the Taxation of Mutual and Stock Life Insurance Companies. **AU** Boskin, Michael J.; Shoven, John; Smart, Scott.

PD December 1988. **TI** The Japanese Tax Reform and the Effective Rate of Tax on Japanese Corporate Investments. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 2791; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323, 122. **KW** Tax Reform. Japan. Corporate Taxes.

AB This paper presents a brief summary of the Japanese income tax system and the changes in it that have been enacted or proposed. It also discusses and evaluates the pressures for reform, both domestic and international. Finally, the paper looks at how the taxation of capital income in Japan has changed since 1980 and how it compares to the United States taxation of capital income after our 1986 tax reform. One major finding of the paper is that the effective marginal tax rate on corporate capital income in Japan has increased sharply since 1980 from roughly five percent to about 32 percent. This change, which still leaves the marginal taxation on corporate investments somewhat lower in Japan than in the United States, is due to both changes in the Japanese tax code and the virtual elimination of inflation in Japan.

Shubik, Martin

PD November 1988. **TI** Game Theory and Experimental Gaming. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 891; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 37. **PR** $2.00. **JE** 215, 026. **KW** Experimental Economics. Game Theory. Experimental Methods.

AB This article deals with experimental games as they pertain to game theory. As such there is a natural distinction between experimentation with abstract games devoted to testing a specific hypothesis in game theory and games with a scenario from a discipline such as economics or political science where the game is presented in the context of some particular activity.

Sibley, David

PD October 1988. **TI** Asymmetric Information, Incentives and Price Cap Regulation. **AA** Bellcore. **SR** Bellcore Economics Discussion Paper: 47; Room 2Q-338, Bellcore, 435 South Street, Morristown, NJ 07960-1961. **PG** 25. **PR** No Charge. **JE** 613, 022, 026. **KW** Regulation. Price. Ceiling. Truthful Revelation. Private Information. Incentive Mechanism.

AB A regulatory incentive mechanism is presented in which the regulated firm has superior information about both cost and demand, compared to the regulator. The mechanism leads to truthful revelation of the demand function and extracts all rents due to private demand information in a non-distorting way. The scheme assumes that the regulator can observe lagged expenditures by the firm. This mechanism leads to efficient pricing, operating and investment behavior by the firm. Finally, it is shown that the mechanism is closely related to recent proposals for price cap regulation and that under certain assumptions simple modifications of these proposals will lead to the mechanisms discussed herein.

Sichel, Daniel E.

PD October 1988. **TI** A Reconciliation of Two Empirical Views of Business Cycle Asymmetry. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System, Economic Activity Section Working Paper Series: 88; Economic Activity Section, Federal Reserve Board, Washington, D.C. 20551. **PG** 17. **PR** No Charge. **JE** 131, 133. **KW** Business Cycles. Gross National Product. Productivity. United States.

AB This note reconciles the evidence provided by Neftci for postwar United States quarterly unemployment variables that contractions are steeper than expansions with the evidence cited by Falk that this is not the case for postwar United States quarterly real-Gross National Product, investment, and productivity. The reconciliation relies on a replication of Neftci's results which reverses the significance of his findings. Further, calculating the statistical power of Neftci's test indicates it has low power in the empirically relevant range and is sensitive to noise. Therefore, it is not surprising that these reconciled results do not detect a greater steepness of contractions than expansions in quarterly data. It is, however, interesting to note that there is some evidence of this type of asymmetry in annual data.

Siklos, P. L.

PD November 1988. **TI** Price Inertia and Policy Ineffectiveness in the United States, 1890-1984: A Reappraisal. **AA** Wilfred Laurier University. **SR** Oxford Applied Economics Discussion Paper: 61; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. **PG** 24. **PR** No Charge. **JE** 122, 226, 133, 023. **KW** Output. United States. Price Inertia. Economic Growth.

AB This paper presents a reappraisal of Gordon's (1982) empirical evidence for price inertia in the United States. Using his extended quarterly data file, updated and revised, separate short run and long run cyclical output regressions are estimated. Unlike Gordon's results, however, estimation over several samples generally reveals no price inertia. Moreover, prewar and postwar periods appear to differ significantly. Also, it appears that anticipated policies do not influence output growth unless one is unconcerned about the choice of the sample period. Finally, lagged unanticipated aggregate demand shocks influence output growth possibility with fairly long lags. Overall, then, the results are unfavorable to Gordon's earlier evidence and are more sympathetic to the Policy Ineffectiveness Proposition of Lucas, Sargent, and Wallace.

Silber, William

PD October 1988. **TI** Marketmaking in Options:

Principles and Implications. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: 492; 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** 30. **PR** No Charge. **JE** 313, 311. **KW** Arbitrage. Options Pricing. Options Trading. Stock Market. Capital Market.

AB Focusing on a single price that balances supply and demand has been enormously helpful in identifying underlying forces of market equilibrium. In keeping with this tradition, the arbitrage models of the options pricing literature focus on an equilibrium price to isolate the underlying determinants of an option's fair value. For the most part, these discussions ignore the structure of markets, taking for granted that somehow the interested buyers and sellers find their way to the marketplace and transact at the equilibrium price.

Silvestre, Joaquim

PD December 1988. **TI** Unemployment and Oligopoly Power: A Synopsis. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 332; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 49. **PR** No Charge. **JE** 821, 022, 824. **KW** Unemployment. Imperfect Competition. Balanced Budget Multiplier. Coordination Failures. Pecuniary Externalities. Menu Costs. Labor Markets.

AB This paper surveys several lines of literature that view unemployment as the result of imperfect competition in the output or labor markets. It aims at presenting the basic ideas with simple examples as illustrations, and at making explicit the connections among papers that have been written in different decades or traditions.

Slade, Margaret E.

PD June 1988. **TI** Price Instability, Market Structure and Speculative Activity. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-15; #997-1873 East Mall, Vancouver, BC V6T 1W5. **PG** 36. **PR** $.20 per page Canadian to other than educational institutions. **JE** 313, 611, 632. **KW** Commodity Markets. Speculation. Market Structure. Price Instability.

AB Data on metal prices sold on commodity exchanges and under a system of producer pricing are used to test two propositions of theoretical interest. The first question is are prices more stable in concentrated industries. And the second is does speculation destabilize prices. The increase in metal-price instability that has occurred in the last decade can be entirely explained by changes in the underlying market-structure and organization variables considered here. Foremost among these is increased reliance on commodity exchanges. The decline in horizontal concentration that has taken place in some metal markets, although a contributing factor, is found to be of far less importance.

Slemrod, Joel

PD December 1988. **TI** Fear of Nuclear War and Intercountry Differences in the Rate of Saving. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 2801; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 114. **KW** War. Saving. Nuclear Arms. World Economy.

AB This paper demonstrates that a survey-based measure of the perceived likelihood of nuclear war in a country is negatively correlated with the country's rate of net private saving, holding other determinants of saving constant. This result is established using data on twenty OECD countries for the period 1981-4. The measure of the perceived likelihood of nuclear war is calculated from surveys conducted in each country by the Gallup International Research Institutes. The magnitude of the estimated effect is large, suggesting that an increase of 10 percent in the fraction of the population that believes a world war is likely is associated with a decline of 4.1 percentage points in the net private saving rate. This finding is consistent with other evidence based on United States aggregate time series and cross-individual data suggesting that fear of nuclear war decreases savings. That proposition has profound implications for the interpretation of the performance of the post-nuclear world economy.

Smart, Scott

TI Economic Issues in the Taxation of Mutual and Stock Life Insurance Companies. **AU** Boskin, Michael J.; Shoven, John; Smart, Scott.

Smith, G. W.

TI Estimates of GDP, Monthly, 1962 to 1985. **AU** Guay, Richard; Milbourne, R. D.; Otto, G.; Smith, G. W.

Smith, Jr Clifford W.

PD December 1987. **TI** The Market for Interest Rate Swaps. **AU** Smith, Jr Clifford W.; Smithson, Charles W.; Wakeman, Macdonald Lee. **AA** Smith: University of Rochester. Smithson: Chase Manhattan Bank. Wakeman, Macdonald: Chemical Bank of New York. **SR** University of Rochester Managerial Economics Research Center Working Paper: MERC 87-02; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 29. **PR** NC single copies 50U each paper beyond 5 in order. **JE** 312, 313, 314, 311. **KW** Interest Rates. Forward Contracts. Portfolios. Loans. Annuities. Defaults. Risk.

AB We decompose interest rate swaps into portfolios of more familiar contracts: loans, annuities, and forward contracts. These decompositions provide methods of valuing default-free swaps. We demonstrate that the pricing implications of default risk are significantly smaller for swaps than loans. Contrasting swaps with forwards and futures helps identify the determinants of default risk and their valuation impact. Finally, we argue that the continuing growth in swaps is attributable to their contribution to interest-rate-exposure management and tax arbitrage, rather than financial arbitrage.

TI On the Corporate Demand for Insurance: Evidence from the Reinsurance Market. **AU** Mayers, David; Smith, Jr Clifford W.

Smith, Roy C.

PD September 1988. **TI** Swaps and Synthetic Securities. **AA** New York University. **SR** New York University Salomon Brothers Working Paper: 489; 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** 35. **PR** No Charge.

JE 441. **KW** Capital Market. Currency. International Investment.
AB Few events have stimulated international capital market activity as much as have the development of interest rate and currency swaps. Prior to 1980, swaps scarcely existed; by 1987 they had become prolific and indeed so much a part of the international financial scene that for the past few years it has been widely accepted that Eurobond transactions involving swaps are responsible at times for more that half of all new issues. Hundreds of billions of dollars of swaps are now outstanding. These constitute valid and binding agreements between participants to exchange one future flow of interest (and sometimes principal) payments for another. Swaps, however, do not appear on anyone's balance sheet, nor have they been subject to banks' reserve requirements; they are considered "contingent liabilities".

Smithson, Charles W.
TI The Market for Interest Rate Swaps. **AU** Smith, Jr Clifford W.; Smithson, Charles W.; Wakeman, Macdonald Lee.

Sondermann, Dieter
TI Zur Berwertung von Caps und Floors. **AU** Sandmann, Klaus; Sondermann, Dieter.

Spady, Richard H.
TI Asymptotic Expansion of the Information Matrix Test Statistic. **AU** Chesher, Andrew; Spady, Richard.

TI Duopoly with Both Ruin and Entry. **AU** Rosenthal, Robert W.; Spady, Richard.

TI The Demand for Local Telephone Service Under Optimal Local Measured Service. **AU** Hobson, Michael; Spady, Richard.

TI Random Reservation Prices and Bidding Behavior in OCS Drainage Auctions. **AU** Hendricks, Kenneth; Porter, Robert; Spady, Richard H.

Spiller, Pablo
PD March 1988. **TI** Politicians, Interest Groups and Regulators: A Multiple-Principals Agency Theory of Regulation (or "Let Them Be Bribed"). **AA** University of Illinois at Urbana-Champaign. **SR** Stanford Center for Economic Policy Research Discussion Paper: 131; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 43. **PR** No Charge to non-profit institutions, $3.00 all others. **JE** 612, 613, 022. **KW** Regulation. Principal-Agent Theory. Politicians.
AB This paper expands the self interest theory of regulation as proposed by Stigler and Peltzman to account for agency problems between politicians and their regulators. The paper shows that the "agency" part of a self-interest theory of regulation provides, by itself, many of the empirical implications traditionally associated with the Stigler-Peltzman approach. The "agency" part, however, has empirically testable implications that differentiate it from the "political" approach. A preliminary test of those implications is performed.

Spindt, Paul
TI Bringing New Issues to Market: A Theory of Underwriting. **AU** Benveniste, Lawrence; Spindt, Paul.

Spulber, Daniel F.
TI Delegated Law Enforcement and Noncooperative Behavior. **AU** Besanko, David; Spulber, Daniel F.

Stacchetti, Ennio
TI The Interaction of Implicit and Explicit Contracts in Repeated Agency. **AU** Pearce, David; Stacchetti, Ennio.

Staiger, Robert W.
TI Sectoral Shocks and Structural Unemployment. **AU** Riordan, Michael; Staiger, Robert.

TI Compositional Effects of Government Spending in a Small Open Production Economy. **AU** Durlauf, Steven; Staiger, Robert.

TI Compositional Effects of Government Spending in a Two-Country Two-Sector Production Model. **AU** Durlauf, Steven N.; Staiger, Robert W.

TI A Theory of Managed Trade. **AU** Bagwell, Kyle; Staiger, Robert W.

TI A Theory of Managed Trade. **AU** Bagwell, Kyle; Staiger, Robert W.

TI A Theory of Managed Trade. **AU** Bagwell, Kyle; Staiger, Robert W.

TI Adverse Selection in Credit Markets and Infant Industry Protection. **AU** Flam, Harry; Staiger, Robert W.

Stamoulis, Kostas G.
TI Modeling Alternative Trade and Macroeconomic Scenarios: Implications for U.S. Agriculture. **AU** Rausser, Gordon C.; Stamoulis, Kostas G.; Love, H. Alan; Chalfant, James A.

PD October 1987. **TI** Overshooting of Agricultural Prices. **AU** Stamoulis, Kostas G.; Rausser, Gordon C. **AA** Stamoulis: University of Illinois at Urbana-Champaign. Rausser: University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 493; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 42p. **PR** $8.40. **JE** 711, 715, 311. **KW** Overshooting. Agricultural Prices. Interest Rates. Monetary Policy. Farm Sector. Commodity Prices.
AB A review of the agricultural economics literature over the past 15 years reveals a growing interest in the effects of macroeconomic aggregates, especially monetary instruments, on the United States farm sector. The possibility that the prosperity of United States agriculture in the early 1970s and its demise during the early 1980s could be linked to major changes in the macroeconomic environment during those periods induced several researchers to take a closer look at the interaction between agriculture and the rest of the United States economy.

Startz, Richard
TI Some Further Results on the Exact Small Sample Properties of the Instrumental Variable Estimator. **AU** Nelson, Charles; Startz, Richard.

TI The Distribution of the Instrumental Variables Estimator and its t-Ratio When the Instrument is a Poor One. **AU** Nelson, Charles; Startz, Richard.

TI Mean Reversion in Stock Prices. A Reappraisal of the Empirical Evidence. **AU** Kim, Myung Jig; Nelson, Charles R.; Startz, Richard.

TI A Markov Model of Heteroskedasticity, Risk, and Learning in the Stock Market. **AU** Turner, Christopher M.; Nelson, Charles; Startz, Richard.

Steinmueller, W. Edward

PD December 1986. **TI** Industry Structure and Government Policies in the U.S. and Japanese Integrated Circuit Industries. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 105; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 52. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 631, 422, 421. **KW** Government Policy. Innovation. Electronics. United States. Computer Industry.

AB Recent public concern over international trade issues have focused on the integrated circuit (IC) industry in which the United States has begun to lose its international dominance to Japanese producers. For twenty five years, the United States IC industry has been one of the most technologically dynamic of all United States manufacturing industries. Few industries can match its record of growth in employment, productivity, and price and performance improvements. Technological improvements in ICs have been the source of technological revolutions in computers, telecommunications, and other electronics manufacturing activity. Price reductions and performance improvements in IC products have provided opportunities for new entry and innovation in electronics goods production. In short, the United States IC industry has been a major source of long term economic growth and employment in the United States economy.

PD September 1987. **TI** International Joint Ventures in the Integrated Circuit Industry. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 104; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 51. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 621, 442, 441. **KW** Technology. Joint Ventures. International Business.

AB International joint ventures in the integrated circuit (IC) industry are part of a complex pattern of inter-company agreements aimed at technology transfer, market access, and cost sharing. In the IC industry, joint ventures have historically played a subsidiary role to inter-firm licensing agreements for technology access and to direct investment for market access. And effective methods for sharing R&D costs among United States IC producers have only recently been developed through research consortia such as Microelectronics and Computer Technology Corporation (MCC) and the Semiconductor Research Corporation (SRC) rather than joint ventures. The number and relative importance of domestic and international joint ventures in the IC industry may increase as a result of four relatively recent developments: 1) attainment of technological parity between United States and Japanese IC producers, 2) emergence of severe financial constraints in developing new IC process technologies and product innovations, 3) evolution of new technical relationships between IC and electronic system design, and 4) growth of protectionist sentiment and regulation in the United States.

TI The Impact of Information Technology Upon Economic Science. **AU** David, Paul A.; Steinmueller, W. Edward.

TI The Economic Analysis of Payoffs From Basic Research -- An Examination of the Case of Particle Physics Research. **AU** David, Paul; Mowery, David; Steinmueller, W. Edward.

TI Can Americans Learn to Become Better Imitators. **AU** Rosenberg, Nathan; Steinmueller, W. Edward.

Stekler, Lois E.

PD November 1988. **TI** Adequacy of International Transactions and Position Data for Policy Coordination. **AA** Division of International Finance, Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 337; Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 40. **PR** No Charge. **JE** 431, 224, 432, 441. **KW** International Transactions. Current Account. International Investment.

AB This paper examines the adequacy of data on current account positions and international indebtedness as indicators of the need for policy adjustments and coordination. Doubts about the adequacy of these data have been raised by the growth of the global current account discrepancy and the statistical discrepancy in the United States international transactions accounts. The paper includes a brief review of the conclusions of the International Monetary Fund working party on the world current account discrepancy and a detailed examination of the data on United States international transactions and net investment position. Both investigations support the conclusion that large shifts in reported data on current accounts and investment positions are likely to reflect real changes.

Stephan, Scott

TI A Note on Specifications Used in Random Effects Models. **AU** Kelejian, Harry; Gatto, Joseph; Stephan, Scott.

Stern, Nicholas

TI Policy Reform, Shadow Prices, and Market Prices. **AU** Dreze, Jean; Stern, Nicholas.

Stiglitz, Joseph E.

TI Two Essays on Travel Safety I. The Economics of Transportation Safety and Deregulation II. Congestion Pricing to Improve Air Travel Safety. **AU** Arnott, Richard; Stiglitz, Joseph.

TI Vertical Restraints and Producers' Competition. **AU** Rey, Patrik; Stiglitz, Joseph.

TI Sources of Technological Divergence Between Developed and Less Developed Economies. **AU** Sah, Raaj Kumar; Stiglitz, Joseph E.

TI Imperfect Information, Finance Constraints, and Business Fluctuations. **AU** Greenwald, Bruce; Stiglitz, Joseph.

PD June 1988. **TI** Rational Peasants, Efficient Institutions, and the Theory of Rural Organization: Methodological Remarks for Development Economics. **AA** Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 18; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 26. **PR** No Charge. **JE** 121,

112, 914, 041. **KW** Poverty. Developing Countries. Social Class. Incomplete Information. Economic Development.
AB Economic models that focus on fully informed peasants working within efficient institutions cannot explain the persistence of poverty in LDCs. This paper explains the methodological underpinnings of an alternative approach to development theory. This alternative approach is based on the theorem that institutional arrangements are in general Pareto inefficient where information is incomplete or markets are missing. Unlike conventional economic theory, this alternative approach to development assigns an important role to history: history may have longlasting effects on an economy's institutions, technology, and human capital.

PD July 1988. **TI** Economic Organization, Information, and Development. **AA** Princeton University. **SR** Princeton John M. Olin Program for the Study of Economic Organization and Public Policy: 21; Department of Economics/Woodrow Wilson School of Public & International Affairs Princeton University, Princeton, NJ 08544. **PG** 127. **PR** No Charge. **JE** 121, 112. **KW** Developing Countries. Sharecropping. Economic Development.
AB This paper surveys the implications of recent developments in the Economics of Information for our understanding of the structure and performance of less developed economies and for the development process itself. It is shown how certain institutions and organizations within LDC's (such as sharecropping, both its prevalence over long periods of time, as well as the detailed provisions of the sharecropping contract; the widely observed interlinking of land, credit, and other markets; and the persistence of above market clearing wages in the urban sector) can be explained by the theory. Some important policy implications of the theory are briefly noted.

TI Credit Rationing, Tenancy, Productivity, and Inequality.
AU Braverman, A.; Stiglitz, J. E.

Stock, James H.

PD November 1988. **TI** A Probability Model of the Coincident Economic Indicators. **AU** Stock, James H.; Watson, Mark W. **AA** Stock: Harvard University. Watson: Northwestern University. **SR** National Bureau of Economic Research Working Paper: 2772; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 131, 133, 132. **KW** Economic Indicators. Business cycle. Economic Activity. Time Series Model.
AB The Index of Coincident Economic Indicators, currently compiled by the U.S. Department of Commerce, is designed to measure the state of overall economic activity. The index is constructed as a weighted average of four key macroeconomic time series, where the weights are obtained using rules that date to the early days of business cycle analysis. This paper presents an explicit time series model (formally, a dynamic factor analysis or "single-index" model) that implicitly defines a variable that can be thought of as the overall state of the economy. Upon estimating this model using data from 1959-1987, the estimate of this unobserved variable is found to be highly correlated with the official Commerce Department series, particularly over business cycle horizons. Thus this model provides a formal rationalization for the traditional methodology used to develop the Coincident Index. Initial exploratory exercises indicate that traditional leading variables can prove useful in forecasting the short-run growth in this series.

Succar, Patricia

PD December 1987. **TI** Optimal Timing of the Catch-Up Process in Semi-Industrialized Countries - A Model of Endogenous Technological Assimilation. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-11; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 25. **PR** No Charge. **JE** 621, 111, 112, 121. **KW** Technology. Innovation. Industrialization. Developing Countries.
AB Effective transfer of technology between countries entails substantial resource costs. The recipient has to make indigenous R&D investments in order to absorb, modify, and adapt imported technology to local use. This paper analyzes the stylized facts of the process of technological absorption of a typical Semi-Industrialized Country (SIC), pointing out relevant factors which affect the pace and timing of the catch-up process. The analysis is carried out in the context of a simple dynamic, three-sector model, where the optimal path of technological assimilation is endogenously determined in a welfare optimizing framework.

PD March 1988. **TI** Learning by Doing and Factor Specificity. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-25; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 30. **PR** No Charge. **JE** 431, 422, 411. **KW** Developing Countries. Terms of Trade. Subsidy. Infant Industry.
AB There are many industries that require the use of sector specific factors, which are immobile even in the long run. This paper analyzes the optimal industrial policy required to promote a learning industry, in the presence of factor specificity. In the context of a two-sector, four-factor model, the optimal time path of the subsidy to the infant industry is derived, and the comparative static and dynamic properties of the model are examined. It is shown that the predictions of the static specific factor model with respect to changes in the terms of trade, hold true in the present model. In addition, the benefits of learning increase with the size of the LDC. A country with abundant endowments of specific factors and large endowment of the mobile factor used intensively in the infant industry, should provide a larger output subsidy, and accumulate a larger stock of production experience, than a small country.

Summers, Lawrence

TI Should Nations Learn to Live with Inflation.
AU Fischer, Stanley; Summers, Lawrence.

Sumodiningrat, Gunawan

TI The Determinants of Rice Variety Choice in Indonesia.
AU Pitt, Mark M.; Sumodiningrat, Gunawan.

Sun, Ye Neng

TI On a Reformulation of Cournot-Nash Equilibria.
AU Khan, M. Ali; Sun, Ye Neng.

Sundaresan, Suresh

TI The Valuation of Corporate Fixed Income Securities.
AU Kim, In Joon; Ramaswamy, Krishna; Sundaresan, Suresh.

Sussman, Frances

TI Valuing Future Risks to Life. **AU** Cropper, Maureen; Sussman, Frances.

Svejnar, Jan

TI Estimates of Static and Dynamic Models of Wage Determination in Labor-Managed Firms. **AU** Estrin, Saul; Svejnar, Jan.

Svensson, Lars E. O.

PD November 1988. **TI** Portfolio Choice and Asset Pricing with Nontraded Assets. **AA** University of Stockholm. **SR** National Bureau of Economic Research Working Paper: 2774; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 441, 411. **KW** Portfolio. Asset Pricing. Capital Markets. International Trade.

AB This paper examines portfolio choice and asset pricing when some assets are nontraded, for instance when a country cannot trade claims to its output on world capital markets, when a government cannot trade claims to future tax revenues, or when an individual cannot trade claims to his future wages. The close relation between portfolio choice with an implicit pricing of nontraded assets is emphasized. A variant of Cox, Ingersoll and Ross's Fundamental Valuation Equation is derived and used to interpret the optimal portfolio. Explicit solutions are presented to the portfolio and pricing problem for some special cases, including when income from the nontraded assets is a diffusion process, not spanned by traded assets, and affected by a state variable.

TI Exchange Rate Variability and Asset Trade. **AU** Persson, Torsten; Svensson, Lars E. O.

Swamy, P. A. V. B.

PD November 1988. **TI** The Stochastic Coefficients Approach to Econometric Modeling, Part III: Estimation, Stability Testing, and Prediction. **AU** Swamy, P. A. V. B.; Conway, Roger; LeBlanc, Michael. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 46; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 49. **PR** No Charge. **JE** 132, 211. **KW** Stochastic Coefficients. Forecasting. Forecast Error. Stochastic Models. Prediction.

AB In our final article we demonstrate why stochastic coefficients models are well suited to predict future variables. We analyze the forecasting problem and consider various criteria of prediction. If a forecaster must choose one from among several coherent predictors, then the choice might as well be the one with the best track record until now. Decomposing the forecast error shows stochastic coefficients models can cover more possible sources of prediction error and correct for them. The empirical record shows stochastic coefficients models have substantially reduced out-of-sample forecast errors in comparison with fixed coefficients models. Our assessment of coefficient stability tests is that they are contradictory, misleading and without empirical value.

Symons, James S. V.

TI The Canadian Bust of '82. **AU** Keil, Manfred W.; Symons, James S. V.

TI The Occupational Choice of British Children. **AU** Robertson, Donald; Symons, James S. V.

Szapary, Gyorgy

TI The "Gulliver Effect" and the "Optimal Divergence" Approach to Trade Policies: The Case of Nepal. **AU** Blejer, Mario; Szapary, Gyorgy.

Tabellini, Guido

PD November 1988. **TI** Voting on the Budget Deficit. **AU** Tabellini, Guido; Alesina, Alberto. **AA** Tabellini: University of California, Los Angeles. Alesina: Harvard University. **SR** National Bureau of Economic Research Working Paper: 2759; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 322, 025. **KW** Public Spending. Government Spending. Budget Deficit. Social Choice. Majority Rule.

AB This paper analyzes a model in which different rational individuals vote over the composition and time profile of public spending. Potential disagreement between current and future majorities generates instability in the social choice function that aggregates individual preferences. In equilibrium a majority of the voters may favor a budget deficit. The size of the deficit under majority rule tends to be larger the greater is the polarization between current and potential future majorities. The paper also shows that the ex-ante efficient equilibrium of this model involves a balanced budget. A balanced budget amendment, however, is not durable under majority rule.

Tanzi, Vito

PD October 1988. **TI** The Impact of Macroeconomic Policies on the Level of Taxation (and on the Fiscal Balance) in Developing Countries. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/88/95; International Monetary Fund, Washington, DC 20431. **PG** 24. **PR** No Charge. **JE** 121, 323, 321, 431, 422. **KW** Developing Countries. Taxation. Macroeconomic Policy. Tax Reform. Fiscal Policy.

AB In recent years the level of taxation of many developing countries has changed dramatically over relatively short periods. These changes are too large and too sudden to attribute fully to a deterioration in tax administration or to changes in the traditional determinants of tax levels. The paper argues that they should be attributed mostly to macroeconomic policies. The paper discusses the connection between tax levels and (a) the real value of the official exchange rate, (b) import substitution policies, (c) trade liberalization, (d) inflation, (e) public debt, (f) financial policies. The paper concludes that more attention should be paid to those relationships and that tax reform should aim at neutralizing some of these effects.

Tardos, Eva

TI An Application of Submodular Flows. **AU** Frank, Andras; Tardos, Eva.

Tesfatsion, L.

TI An Organizing Principle for Dynamic Estimation. **AU** Kalaba, R.; Tesfatsion, L.

TI Restoring The First Welfare Theorem for Overlapping Generations Economies. **AU** Pingle, M.; Tesfatsion, L.

Tobin, James

TI The Macroeconomics of Government Finance. **AU** Haliassos, Michael; Tobin, James.

Tracy, Joseph

PD November 1988. **TI** Testing Strategic Bargaining Models Using Stock Market Data. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 2754; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 832, 831, 313, 311. **KW** Stock Market. Asymmetric Information. Learning. Bargaining. Negotiation.

AB This paper presents three empirical tests of a class of asymmetric information bargaining models using stock market data. The basic idea behind these models is that protracted bargaining can be used to infer information that is privately known by another party to the negotiations. A fundamental implication of these models is that there should be evidence that negotiations result in learning taking place. In the context of union contract negotiations, if bargaining is primarily motivated by the union's uncertainty over the firm's future profitability, then there should be evidence that contract negotiations reduce this uncertainty. This prediction is tested by comparing the variance of the firm's stock price prior to and following a contract negotiation. The data indicate that bargaining results in a significant reduction in this variance.

PD November 1988. **TI** Comparisons Between Public and Private Sector Union Wage Differentials: Does the Legal Environment Matter. **AA** Yale University. **SR** National Bureau of Economic Research Working Paper: 2755; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 824, 831, 832, 822. **KW** Unions. Collective Bargaining. Legal Protection. Union Strength. Wage Differentials.

AB A stylized fact in the growing literature on public sector labor markets is that estimates of public sector union wage premia are significantly lower than estimates of private sector union wage premia. In this paper I investigate the hypothesis that this difference may in part be due to the differing legal environments in which public and private sector unions operate. Using data from the Current Population Survey and the Census of Population, I find that public sector union wage differentials increase significantly with the degree of legal protection afforded to the union in bargaining. However, the estimated public sector union wage premia when no legal controls are included in the specification are close to the estimated premia under the strongest legal environment. Consequently, while controlling for the legal environment in the public sector is important, it may not reconcile the differences between estimated public and private sector union wage premia.

Triest, Robert K.

PD July 1987. **TI** The Relationship Between the Marginal Cost of Public Funds and Marginal Excess Burden. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 194; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 25. **PR** No Charge. **JE** 227, 614, 024. **KW** Public Goods. Cost-Benefit Analysis. Price Index.

AB Intuition suggests that if a proposed public project is to be funded through the use of distortionary tax instruments, then the excess burden generated by those taxes should be incorporated into the cost of the project in doing a benefit-cost analysis of it. This paper demonstrates that this intuition is incorrect due to an index number problem. Excess burden is normally measured in terms of producer prices, while project benefits are usually measured in terms of current distorted consumer prices. Due to the difference in the price vectors on which the welfare calculations are based, the marginal cost of public funds to be used in benefit-cost calculations may be less than one even when the tax instruments used to fund the project have large associated values of both total and marginal excess burden.

PD July 1987. **TI** The Effect of Income Taxation on Labor Supply When Deductions are Endogenous. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 195; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 35. **PR** No Charge. **JE** 824, 921, 323. **KW** Labor Supply. Taxation. Tax Deductions.

AB This paper extends the standard static model of labor supply and taxation to the case where people are able to legally avoid taxes through the use of itemized deductions. Tax deductible expenditures are treated as a Hicksian composite good with a price (for those who decide to itemize) proportional to one minus the marginal tax rate. Estimation of the commonly used linear labor supply model (extended to incorporate the additional composite good) on a cross-section of prime aged married men suggests that tax deductible consumption is an uncompensated substitute for leisure (and complement with labor). The impact of taxes through the relative price of deductible expenditures appears to be much stronger than through the net wage.

PD August 1987. **TI** Nonparametric Estimation of the U.S. Federal Income Tax Function. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 197; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 44. **PR** No Charge. **JE** 824, 821, 323, 921. **KW** Nonparametric Estimation. Labor Supply. Income Taxation. Tax Rates. Budget Constraints.

AB This paper uses nonparametric regression estimators to investigate two issues which arise in estimating labor supply functions in the presence of income taxation: (i) whether there is sufficient information in available datasets to use the complete budget constraint estimation method, and (ii) whether the effective marginal tax rate is less than the statutory marginal tax rate. Features of the distribution of United States federal tax payments conditional on adjusted gross income are estimated using individual income tax return data. The empirical results suggest that (i) there is an informational problem in using the complete budget constraint method, and (ii) that the statutory marginal tax rate does overstate the effective marginal tax rate.

PD August 1987. **TI** A Monte Carlo Test of the Robustness of Alternative Estimators of Labor Supply Functions. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Economics Working Paper: 198; Department of Economics, Johns Hopkins University, Baltimore, MD 21218. **PG** 32. **PR** No Charge. **JE** 824, 821, 921. **KW** Monte Carlo Test. Budget Constraints. Labor Supply.

AB The complete budget constraint method for estimating labor supply functions when agents face piecewise linear budget constraints has been criticized for requiring that the econometrician know the exact location of the kink points in each sample member's budget constraint. This paper presents the results of Monte Carlo "experiments" which investigate the performance of the complete budget constraint maximum likelihood estimator when there is measurement error in sample members' budget constraints. The behavior of instrumental variables and ordinary least squares estimators are also examined. The results suggest that the complete budget constraint estimator is more robust with respect to measurement error in the kink points than one might have expected. However, the computationally much simpler instrumental variables estimator produces parameter estimates which are very similar on average.

Turner, Christopher M.

PD January 1989. **TI** A Markov Model of Heteroskedasticity, Risk, and Learning in the Stock Market. **AU** Turner, Christopher M.; Nelson, Charles; Startz, Richard. **AA** University of Washington. **SR** National Bureau of Economic Research Working Paper: 2818; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 311. **KW** Stock Market. Risk Premium. Markov Process. Uncertainty. Asset Pricing.

AB Risk premia in the stock market are assumed to move with time varying risk. We present a model in which the variance of the excess return of a portfolio depends on a state variable generated by a first-order Markov process. A model in which the realization of the state is known to economic agents, but unknown to the econometrician, is estimated. The parameter estimates are found to imply that the risk premium declines as the variance of returns rises. We then extend the model to allow agents to be uncertain about the state. Agents make their decisions in period t using a prior distribution of the state based only on past realizations of the excess return through period t - 1 plus knowledge of the structure of the model. The parameter estimates from this model are consistent with asset pricing theory.

Turnovsky, Stephen

TI Tariffs, Capital Accumulation, and the Current Account in a Small Open Economy. **AU** Sen, Partha; Turnovsky, Stephen.

Urquhart, M. C.

PD November 1988. **TI** Canadian Economic Growth 1870-1980. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 734; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 100. **PR** $3.00 Canada; $3.50 United States and Foreign. **JE** 122, 112, 051, 042. **KW** Economic Development. Canada.

AB The Canadian economy has gone through four fairly readily identified stages since 1870. First, the years 1870 to 1896 are characterized by laggard growth with some net emigration. Second, the period 1896 to 1929 is one of boom with very high rates of immigration and development of the wheat economy with much dependence on export markets. Third, the 1930s and 1940s are periods of disturbance with severe depression in the 1930s and war in the 1940s. Finally, the years 1950 to 1980 are years of sustained growth with development of many of the features of a mature economy. The underlying characteristics of these developments are examined in considerable detail.

VanHoose, David D.

TI Loan Commitments and Optimal Monetary Policy. **AU** Duca, John V.; VanHoose, David D.

PD August 1988. **TI** Borrowed Reserves Targeting and Nominal Income Smoothing. **AA** Indiana University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 43; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 19. **PR** No Charge. **JE** 311. **KW** Borrowing. Borrowed Reserves. Monetary Policy. Federal Reserve.

AB This paper provides a theoretical analysis of the Federal Reserve's borrowed reserves targeting procedure. In the context of a model in which nonborrowed reserves are varied to achieve, on average, an intraperiod target level of borrowing that is consistent with an objective involving interperiod variability of nominal income, it is demonstrated that periodic adjustments of the borrowings target generally are optimal. In turn, the amount and direction of the target adjustment is conditioned to the deviation of actual borrowings from the borrowings target set in the previous period and depends upon the values of structural parameters and the sources and magnitudes of exogenous disturbances. It is argued that actual Federal Reserve behavior is not inconsistent with these implications of the model.

TI Wage Indexation in a Multisector Economy. **AU** Duca, John V.; VanHoose, David.

Vegh, Carlos

TI Macroeconomic Interdependence under Capital Controls: A Two-Country Model of Dual Exchange Rates. **AU** Guidotti, Pablo; Vegh, Carlos.

Vickrey, William

PD August 1988. **TI** The Backward Art of Utility Pricing. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 404; Department of Economics, Columbia University, New York, NY 10027. **PG** 13. **PR** $5.00. **JE** 613, 723. **KW** Utility Rates. Regulation. Public Utilities. Resource Utilization. Energy.

AB In the past primary attention has been given to the effect of rates on the profitability of the utility and on overall equity between it and its customers, and among customers, to the relative disregard of the effect of rate structure on the efficiency of resource utilization. A horrible example of this is found in the way demand charges are imposed, If, for example, we have a monthly charge of $10 per kilowatt for peak demand measured over a 15 minute interval, one additional kilowatt-hour consumed during the critical 15 minute period of the customer's monthly peak will result in a charge of $40 for that 1 KWH. Worse, if a 12-month 90 per cent ratchet is applied, the cost to the customer of a critical KWH of usage could be as high as $436.00. Faced with such charges, customers find it profitable to install costly load-control devices, in many cases with relatively little likelihood of contributing significantly to the easing of loads at times of system stringency.

Vila, Jean Luc

TI Portfolio Insurance in Complete Markets: A Note. **AU** Grossman, Sanford; Vila, Jean Luc.

Viscusi, W. Kip

PD February 1988. **TI** Utility Functions that are Dependent on One's Health Status: Estimates and Economic Implications. **AU** Viscusi, W. Kip; Evans, William. **AA** Viscusi: Northwestern University. Evans: University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-19; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 43. **PR** No Charge. **JE** 913, 921. **KW** Accidents. Insurance. Risk. Health.

AB Using data on worker responses to hazard warnings, we provide estimates of the utility functions for good health and after an injury. The Taylor series and logarithmic estimates both imply that injuries reduce the utility level and the marginal utility of income. The optimal income replacement rate after an injury is .85 with actuarially fair insurance and .68 with current loading rates. The implicit value of an injury has a unitary income elasticity, and estimates consistent with economic predictions are made of the valuation of non-incremental risk changes and effects of the base risk on the value of an injury.

Von Ungern, Sternberg Thomas

PD August 1988. **TI** Zur Forderung der VANS in der Schweiz. **AA** Universite de Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 8807; Departement d'econometrie et d'economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne / SWITZERLAND. **PG** 16. **PR** No Charge. **JE** 635, 614. **KW** Deregulation. Telecommunications. Technical Progress.

AB The creation of digital telecommunication networks has created new possibilities for generating additional value added over and above the traditional activity of information transmission (Value Added Network Services). The aim of this paper is to evaluate the long term economic importance of this small but rapidly growing area. It is argued that national PTTs can create important stimuli for the development of VANS, even if they do not wish to open up their network to competition. To do this they should increase the availability of leased lines for data-transmission, and reduce leased lines tariffs to cost-based prices.

PD August 1988. **TI** The Flexibility to Switch Between Different Products. **AA** Universite de Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 8806; Departement d'econometrie et d'economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne / SWITZERLAND. **PG** 19. **PR** No Charge. **JE** 611, 621, 514, 616. **KW** Flexibility. Multiproduct Firms. Heterogeneity. Technology.

AB In many situations of fluctuating demand, firms react by diversifying into several different markets. The use of flexible (nondedicated) equipment implies higher costs for the production of one good, but makes it easier (less costly) to switch to the production of another. When flexibility is modelled in this way, market equilibrium will usually be characterized by a variety of different firms subsisting on the market, some using (high cost) flexible technologies, others (low cost) dedicated production units. This heterogeneity of firms is due to the fact that the choice between specialization and flexibility involves a fundamental non-convexity.

Wadsworth, Jonathan

TI On-the-Job Search: Some Empirical Evidence. **AU** Pissarides, Chris A.; Wadsworth, Jonathan.

Wakeman, Macdonald Lee

TI The Market for Interest Rate Swaps. **AU** Smith, Jr Clifford W.; Smithson, Charles W.; Wakeman, Macdonald Lee.

Waldman, Michael

TI Responders Versus Nonresponders: A New Perspective on Heterogeneity. **AU** Haltiwanger, John; Waldman, Michael.

TI Rational Expectations in the Aggregate. **AU** Haltiwanger, John C.; Waldman, Michael.

Wallis, John Joseph

PD November 1987. **TI** Laws, Legislatures and Relief: Some Determinants of Institutional Change in the New Deal. **AA** University of Maryland and NBER. **SR** University of Maryland Department of Economics Working Paper Series: 88-49; Department of Economics, University of Maryland College Park, MD 20742. **PG** 75. **PR** No Charge. **JE** 042, 325, 112, 322. **KW** New Deal. Economic History. National Government. State Governments.

AB This paper examines the development of national, state, and local government relations during the New Deal. Between 1933 and 1940 the fiscal importance of local and national governments was reversed. The growth of the nationally financed, but state and locally administered New Deal relief programs accounts for over three-fourths of the shift from local to national expenditures. The paper develops an explanation for the pattern of development and test the explanation by examining the passage of eleven relief bills in Congress.

PD February 1988. **TI** Does Economic Sclerosis Set in With Age. An Empirical Study of the Olson Hypothesis. **AU** Wallis, John Joseph; Oates, Wallace E. **AA** University of Maryland. **SR** University of Maryland Department of Economics Working Paper Series: 88-23; University of Maryland, Department of Economics, College Park, MD 20742. **PG** 20. **PR** No Charge. **JE** 111, 113, 122, 823. **KW** Migration. Economic Growth. United States. Demographics.

AB Mancur Olson has suggested that the rate of economic growth declines as stable policies grow older, a proposition he tested using data from the United States in the 1960s. We reexamine Olson's hypothesis, using a large panel data set covering the twentieth century in the United States. We fail to find convincing evidence to support Olson's claim. The only specification that supports the hypothesis is one in which population movements are attributed wholly to Olson forces. The obstacles to testing the hypothesis are formidable because of the difficulty of separating migration into Olson and non-Olson components.

Walraven, Nicholas

TI Dynamic Welfare Analysis and Commodity Futures Markets Overshooting. **AU** Rausser, Gordon C.; Walraven, Nicholas.

Warner, Jerold B.

TI The Distribution of Power Among Corporate Managers, Shareholders, and Directors. **AU** Jensen, Michael C.;

Warner, Jerold B.

Wascher, William L.

TI Regional Labor Markets, Cost-of-Living Differentials, and Migration. **AU** Gabriel, Stuart A.; Shack, Marquez Janice; Wascher, William L.

Waterman, David

PD October 1988. **TI** Narrowcasting on Cable Television: A Program Choice Model. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8819; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 28 pages. **PR** No Charge. **JE** 635. **KW** Television. Cable Television. Choice Models. Product Choice. Product Quality.

AB Previous economic models suggested that the diffusion of cable or other video technologies with high channel capacity and the means to price television programs directly to viewers would promote specialized, "narrow appeal" programming designed to serve relatively small audience segments. While this has apparently occurred, cable's dominant function in economic terms has become its role as one step in the sequential release of dramatic programs which eventually accumulate very large audiences. Budgets for these programs appear to have inflated substantially. Cable networks also tend to repeat all types of programs more frequently than broadcast stations. This paper offers a modified version of the discrete "program choice" models of previous authors in an attempt to explain these phenomena. Specifically, we show conditions under which direct pricing mechanisms and new channel capacity can induce a monopoly cable operator not to fragment audiences by offering more specialized programs, but to increase production investments for "mass appeal", "lowest common denominator" programs.

Watson, Mark W.

TI A Probability Model of the Coincident Economic Indicators. **AU** Stock, James H.; Watson, Mark W.

Weil, David N.

TI The Baby Boom, the Baby Bust, and the Housing Market. **AU** Mankiw, N. Gregory; Weil, David N.

Weisbach, Michael S.

PD September 1987. **TI** Outside Directors and CEO Turnover. **AA** University of Rochester. **SR** University of Rochester Managerial Economics Research Center Working Paper: MERC 87-08; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PR** NC Single copy 50U per copy beyond five in each order. **JE** 511, 512, 514. **KW** Outside Directors. Chief Executive Officers. Resignations. Managers.

AB This paper examines the relation between the monitoring of CEOs by inside and outside directors and CEO resignations. CEO resignations are predicted using stock returns and earnings changes as measures of prior performance. There is a stronger association between prior performance and the probability of a resignation for companies with outsider-dominated boards than for companies with insider-dominated boards. This result does not appear to be a function of ownership effects, size effects, or industry effects. Unexpected stock returns on the days when resignations are announced are consistent with the view that boards increase firm value by removing bad management.

TI The Determinants of Board Composition. **AU** Hermalin, Benjamin E.; Weisbach, Michael S.

Whalley, John

TI Coalitions in the Uruguay Round: The Extent, Pros and Cons of Developing Country Participation 1, 2. **AU** Hamilton, Colleen; Whalley, John.

White, Kenneth J.

TI Estimation and Testing in Demand System with Concavity Constraints. **AU** Chalfant, James A.; White, Kenneth J.

Whitesell, William

PD November 1988. **TI** Deposit Pricing, Bank Market Structure, and Welfare with Cost-Minimizing Consumers. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 48; Special Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 35. **PR** No Charge. **JE** 312. **KW** Bank Deposits. Banks. Transaction Services. Bank Policy. Reserve Requirements.

AB This paper develops a model of bank deposit pricing in which consumers make optimal choices among alternative media of exchange. The model demonstrates the advantage of interpreting the market for bank deposits as a market for transaction services, and a rationale is offered for below-cost service fees, despite deregulated deposit rates. The non-payment of interest on currency is shown to imply the possibility that a monopolist may be more efficient than competitive banks, and that reserve requirements may reduce the deadweight losses associated with competitive provision of bank payment services.

Wilson, Robert

TI Strategic Bargaining Models and Interpretation of Strike Data. **AU** Kennan, John; Wilson, Robert.

Witteloostuijn, Arjen Van

PD December 1988. **TI** Entry and Exit Barriers: A Note on The Compatibility of Free Entry and Costly Exit. **AA** University of Limburg, the Netherlands. **SR** New York University Economic Research Reports: 88-40; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 45. **PR** No Charge. **JE** 611, 022. **KW** Market Structure. Industrial Organization. Contestable Markets. Free Entry.

AB The contestable market theory is based upon an assumption of free entry and costless exit. Since both entry and exit barriers are absent, incumbent firms are guided by a predominant fear of "hit-and-run" entry. This paper examines whether the introduction of incumbent firms' sunk investments harms the free entry feature of a contestable market. It is argued that an assumption of free entry is, under particular circumstances, compatible with the presence of sunk investments. This is called the barrier market. The implications of a barrier market assumption for market behavior are briefly outlined. The essential conditions of entry and exit that are associated with a barrier market are subsequently examined. Moreover, it is argued that there are (at least) four types of barrier markets (perfect versus imperfect and nonstrategic versus strategic). The distinguishing feature of a barrier market is that incumbent firms are unable to benefit (fully) from the entry barriers that inferior potential entrants are facing, since their behavior is disciplined by a threat of entry by superior potential entrants.

Wolak, Frank

PD April 1987. **TI** Shapley Values as Ex Ante Measures of Relative Market Power: An Application to the Western U.S. Coal Market. **AU** Wolak, Frank; Kolstad, Charles. **AA** Wolak: Stanford University. Kolstad: Massachusetts Institute of Technology. **SR** Stanford Center for Economic Policy Research Discussion Paper: 94; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 30. **PR** No Charge to members of non-profit institutions, $3.00 all others. **JE** 611, 615, 616. **KW** Market Power. Railroad. Coal.

AB There has been a great deal of policy discussion about the extent to which prices of low-sulfur western coal have been inflated over costs. Railroads serving the Powder River basin and the states of Wyoming and Montana, through their severance taxes, have been accused of extracting monopoly rent from the booming market in cheap low sulfur western coal. The question posed in this paper is who has the market power. And if more than one party possesses power (as is likely) what is the relative power of participants in the market. To measure power in this market, we propose a new metric. We set up the market as a four-person game involving the states of Wyoming and Montana and the two railroads serving the Powder River Basin -- the Burlington Northern and the Chicago and Northwestern. We then compute the Shapley values for this game and normalize them by potential industry revenue. We call this measure the Lerner-Shapley index and demonstrate that it has several desirable characteristics as a conduct-endogenous measure of market power.

Wolff, Edward N.

TI Changes in the Skill Requirements of the U.S. Labor Force, 1960-85. **AU** Howell, David R.; Wolff, Edward N.

TI Secondary Products and the Measurement of Productivity Growth. **AU** Raa, Thijs ten; Wolff, Edward N.

Woolley, J. Michael

PD September 1988. **TI** Imperfect Information, Adverse Selection and Interest Rate Sluggishness in the Pricing of Bank Credit Cards. **AA** Board of Governors of the Federal Reserve. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 37; Division of Research and Statistics, Federal Reserve Board, Washington, D.C. 20551. **PG** 35. **PR** No Charge. **JE** 312, 921, 315. **KW** Imperfect Information. Credit Cards. Interest Rates. Search Costs. Consumers.

AB This paper presents a model of imperfect consumer information in order to explain the sluggishness of bank credit card interest rates. Consumer search costs create an asymmetry in the bank's profit function between interest rate increases and decreases, forming a "kink" which may lead to rate stickiness. The dispersion of interest rates is shown to be due largely to variation in credit qualifying standards. Empirical analysis provides support for the model.

Wright, Gavin

PD October 1987. **TI** American Industrial Leadership, 1879-1940: Trade in Manufactures. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper: 108; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 38. **PR** No Charge for members of non-profit institutions, $3.00 otherwise. **JE** 042, 631, 721. **KW** Exports. Manufacturing. Industrial Organization. Natural Resources.

AB This paper considers the origins of American industrial leadership after 1879, by means of a study of factor intensity in manufacturing exports and imports. The results are surprising. They suggest that the competitive advantage of American manufacturing was not rooted in capital intensity, nor in labor skills, nor in across-the-board technological superiority. Instead, the single most robust finding is that American exports were characterized by intensity in natural resources. In fact, their relative resource intensity was increasing over the half-century prior to the Great Depression. Further tests, however, suggest that there was considerable complementarity between resource intensity and capital intensity under pre-World War II technology.

Ye, Susan

TI Tourism in East Caribbean Countries. **AU** Shibuya, Hiroshi; Ye, Susan.

Yuan, Hsiao Jane

PD October 1988. **TI** A Linear Statistical Analysis of "Tic-By-Tic" Stock Market Data. **AU** Yuan, Hsiao Jane; Ramsey, James B. **AA** New York University. **SR** New York University Economic Research Reports: 88-35; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 93. **PR** No Charge. **JE** 313, 212. **KW** Stock Market. Stock Prices. Trading.

AB This paper examines extensively the statistical properties of "tic-by-tic" stock market data for a short list of stocks on the New York exchange for the month of August 1986. The data analyzed are the bid and ask prices of the stocks traded, the volumes of the trades, and the number of trades within one minute, the minimum time interval for recording transactions on the New York Exchange. At this stage of the analysis, the major items of interest are the moment properties of the data, the Markov structure of the various time series and its variation with increases in the time aggregation of the data. Particular attention is paid to the periods of time between the arrival of information, in an effort to isolate the difference in behavior between the steady state level of trading and that occasioned by the arrival of information. This paper is preparatory to the second paper to follow that will investigate the presence of nonlinear characteristics in the time series.

Zarnowitz, Victor

PD January 1989. **TI** Major Macroeconomic Variables and Leading Indexes: Some Estimates of Their Interrelations, 1886-1982. **AU** Zarnowitz, Victor; Braun, Phillip. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 2812; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 131, 023, 133, 134. **KW** Fluctuations. Price Indexes. Output. Inflation. Economic History.

AB We examine the interactions within sets of up to six variables representing output, alternative measures of money and fiscal operations, inflation, interest rate, and indexes of selected leading indicators. Quarterly series are used, each taken with four lags, for three periods: 1949-82, 1919-40, and 1886-1914. The series are in stationary form, as indicated by unit root tests. For the early years, the quality of the available data presents some serious problems. We find evidence of strong effects on output of the leading indexes and the short-term interest rate. The monetary effects are greatly reduced when these variables are included. Most variables depend more on their own lagged values than on any other factors, but this is not true of the rates of change in output and the composite leading indexes. Some interesting interperiod differences are noted and discussed.

Zeldes, Stephen P.

TI Production, Sales, and the Change in Inventories: An Identity That Doesn't Add Up. **AU** Miron, Jeffrey; Zeldes, Stephen P.

Zemel, Eitan

PD November 1988. **TI** Small Talk and Cooperation: A Note on Bounded Rationality. **AA** Kellogg School of Management, Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 803; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 19. **PR** No Charge. **JE** 026. **KW** Bounded Rationality. Prisoners Dilemma. Repeated Games. Cooperative Games.

AB Neyman has shown that bounded rationality can lead to cooperation in the finitely repeated prisoner's dilemma game, if the game is conducted by finite automata of fixed size. We obtain similar results utilizing finite automata which can send messages back and forth over a given communication channel. The communication protocol utilized does not involve the transfer of any relevant information. Rather, it saturates the computational resources of the players thus preventing them from engaging in complex strategies which could potentially undermine cooperation.

Zender, Jaime

TI Testing a Necessary Condition for Efficiency in the Foreign Exchange Forward Market. **AU** Corbae, Dean; Ouliaris, Sam; Zender, Jaime.

Zilcha, Itzhak

TI Technological Progress and Income Inequality. **AU** Karni, Edi; Zilcha, Itzhak.