

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 online through BRS. (Call 800-345-4277, or 518-783-1161 collect from overseas.)

Adams, William James

PD July 1986. TI Profiting from "Countervailing" Power: An Effect of Government Control. AU Adams, William James; Sappington, David E. M. AA Adams: The University of Michigan. Sappington: Bell Communications Research, Incorporated. SR Bell Communications Research Incorporated Economics Discussion Paper: 16; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 17. PR No Charge. JE 613, 612, 611, 026, 025. KW Countervailing Power. Monopoly. Regulation. Audit Reports. Information.

AB We demonstrate that a firm subject to government control might expect an increase in profit upon creation of an independent upstream monopoly. Such a monopoly serves to increase the expected cost of the regulated firm. As a result, even regulators who behave socially optimally will decrease the frequency with which they audit reports of high production costs. The reduction in governmental investigation permits the firm to increase the rents it derives from its superior information about cost.

Adelman, Irma

PD October 1986. TI Adjustment Under Uncertainty with Computable General Equilibrium Models. AU Adelman, Irma; Sarris, Alexander H.; Roland, Holst David Wells. AA Department of Agricultural and Resource Economics, University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 426; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 40. PR \$8.00. JE 021, 023, 026, 213. KW General Equilibrium Models. Uncertainty. Time Path. Stochastic Optimal Control. Policy Adjustment.

AB Economic policy formulation in the presence of uncertainty is studied in a general equilibrium modeling framework using techniques adapted from the theory of stochastic optimal control. The structure of the economy is represented by a dynamic computable general equilibrium model. The adjustment rules are derived by minimizing an expected loss function whose arguments are the deviations of a set of targets from its intended time path. Adjustment matrices are derived to provide ex ante rules for automatic policy responses to unexpected fluctuations in the economic conditions faced by the economy so as to keep policy target variables near their intended time paths.

TI Economic Development and Institutional Change in

the 19th Century. AU Morris, Cynthia Taft; Adelman, Irma.

PD December 1986. TI Agricultural Development Led Industrialization in a Global Perspective. AU Adelman, Irma; Bournieux, Jean Marc; Waelbroeck, Jean. AA Adelman and Bournieux: Department of Agricultural and Resource Economics, University of California, Berkeley. Waelbroeck: Free University of Brussels. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 435; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 24. PR \$4.80. JE 110, 710, 121, 041. KW Agricultural Development. Industrialization. Simulation Methods.

AB The theme of this conference is the balance between agriculture and industry. The aim of our paper is to explore this issue within the framework of a global agricultural model, which traces out the static and dynamic effects of alternative strategy sequences with respect to the two sectors. While we believe that in the long run agricultural and industrial expansion must be in balance, several strands of research indicate that an optimal development pattern in the next decade will require unbalanced investment strategies. First, historical research on the early stages of growth of currently developed countries indicates that the Industrial Revolution started in countries that had already experienced substantial increases in agricultural productivity. Secondly, individual country experience with agricultural strategies implemented in open economy trade regimes has been quite favorable. Third, simulations with single-country computable general equilibrium (CGE) models (Adelman (1984); de Janvry and Sadoulet (1986)) have indicated that, with current initial conditions and in the present low-growth world environment, an Agricultural Development Led Industrialization (ADLI) strategy leads to higher rates of economic growth, better income distribution, more rapid industrialization, and a stronger balance of payments than does continuation of a purely export-led growth strategy.

PD March 1987. TI Income Distribution and Development: A Survey. AU Adelman, Irma; Robinson, Sherman. AA Department of Agricultural and Resource Economics, University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 436; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 92. PR \$18.40. JE 110, 121, 221. KW Income Distribution. Economic

2 ABSTRACTS

Development. Economic Models.

AB The formulation of economic policy involves a contrapuntal interplay among several elements: societal values and ideology; perceptions of stylized facts concerning the recent and potential trends of economic variables; prevailing theoretical paradigms concerning the operation of the economy and the determinants of its dynamics; identification of instruments of policy; and interactions between perceptions of what is desirable and what is feasible under different institutional and socio-political structures. These elements do not operate independently of each other: values, ideology, and paradigms influence and are influenced by public perceptions of stylized facts. Institutions and socio-political structures affect the benefit-cost ratios of alternative policies and their incidence among different classes of actors in the economy. Variations in incidence, in turn, affect perceptions of what is desired and what is feasible. The interplay among these elements is nowhere clearer than in the priority given to income distribution and poverty in economic policy.

Aizenman, Joshua

PD February 1987. **TI** Monopolistic Competition and Labor Market Adjustment in the Open Economy. **AA** GSB, University of Chicago. **SR** National Bureau of Economic Research Working Paper: 2152; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 611, 823, 824, 431, 023. **KW** Monopolistic Competition. Wages. Employment. Rational Expectations. Labor Contract.

AB This paper explains prices, output and employment adjustment in an open economy characterized by a monopolistic competitive market structure where goods prices are flexible while wages are determined by contracts that pre-set the wage path for several periods. The paper solves the rational expectation equilibrium in an economy characterized by staggered, unsynchronized wage negotiation, for which the degree of contract staggering is endogenously determined. It investigates the adjustment of output, exchange rate and prices to nominal and real shocks, and to what extent that adjustment depends on the market power enjoyed by each producer and the substitutability between domestic and foreign goods. It also studies the potential role of indexation clauses, like wage indexation to nominal income. The analysis shows that unexpected monetary shocks can generate persistent aggregate output and relative price shocks, whose nature is determined by the degree of substitutability between domestic and foreign goods. Greater substitutability induces a greater output and employment effects and smaller prices effects in the short and the intermediate run. On the other hand, greater substitutability is shown to reduce the persistency and duration of the adjustment. If the income elasticity of the demand for money is less than unity the presence of nominal wage contracts tends to magnify the responsiveness of the economy to real shocks, and a larger degree of substitutability will magnify the short-run and the intermediate-run adjustment of prices and output to real shocks, and will reduce the needed adjustment of relative prices.

Albach, Horst

PD December 1986. **TI** Das Finanzierungsverhalten Japanischer und Deutscher Unternehmen. **AU** Albach, Horst; Mori, Akio. **AA** Albach: University of Bonn. Mori: Kobe University, Japan. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: D-9; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. **PG** 69. **PR** No Charge. **JE** 521, 522, 313. **KW** Business Finance. Japan. Germany.

Alesina, Alberto

PD February 1987. **TI** A Positive Theory of Fiscal Deficits and Government Debt in a Democracy. **AU** Alesina, Alberto; Tabellini, Guido. **AA** Alesina: Carnegie Mellon University. Tabellini: University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 435; Department of Economics - University of California at Los Angeles Los Angeles, CA 90024. **PR** \$2.50. **JE** 321, 322, 323, 131. **KW** Public Debt. Democracy. Time Consistency. Tax Distortions. Budget Deficit. Fiscal Policy. Elections. Deficits Bias. Public Goods.

AB This paper considers an economy in which policymakers with different preferences concerning fiscal policy alternate in office as a result of democratic elections. It is shown that in this situation government debt becomes a strategic variable used by each policymaker to influence the choices of her successors. In particular, if different policymakers disagree about the desired composition of government spending between two public goods, the economy exhibits a deficits bias. Namely, in this economy debt accumulation is higher than it would be with a social planner. According to the results of our model, the equilibrium level of government debt is larger: the larger is the degree of polarization between alternating governments; and the more likely it is that the current government will not be reelected. The paper has empirical implications which contribute to explain the current fiscal policies in the United States and in several other countries.

Amir, Rabah

PD March 1987. **TI** Sequential Games of Resource Extraction: Existence of Nash Equilibria. **AA** Department of Applied Mathematics and Statistics, SUNY at Stony Brook. **SR** Yale Cowles Foundation Discussion Paper: 825; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. **PG** 25. **PR** No Charge. **JE** 026, 632, 213, 721. **KW** Sequential Games. Dynamic Programming. Fixed Point Theorem. Nash Equilibrium. Common Property. Natural Resources. Common property.

AB A general model for noncooperative extraction of common-property resource is considered. The main result is that this sequential game has a Nash equilibrium in stationary strategies. The proof is based on an infinite dimensional fixed-point theorem, and relies crucially on the topology of epi-convergence. A byproduct of the analysis is that Nash equilibrium strategies may be selected such that marginal propensities of consumption are bounded above by one.

Anderson, Robert M.

PD September 16, 1986. TI The Second Welfare Theorem with Convex Preferences. AA University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8608; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 24. PR \$3.50. JE 024, 213. KW Welfare Theory. Nonconvexities. Walrasian Equilibrium. Nonstandard Analysis. Shapley-Folkman Theorem.

AB We prove several versions of the second theorem of welfare economics for exchange economies with nonconvex preferences.

Anderson, Simon P.

PD October 1986. TI Market Efficiency With Combinable Products. AU Anderson, S. P.; Neven, D. J. AA Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8645; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 13. PR No Charge. JE 611, 026, 022. KW Combined Products. Product Mix. Location Price Game. Perfect Equilibrium.

AB We allow consumers to combine products to obtain a mix of their characteristics. We show there is a unique sub-game perfect equilibrium in a product location-price game, such that all consumers are able to attain their desired product mix. This solution is the socially optimal one, in stark contrast to "location" models where combinability is debarred by assumption.

PD November 1986. TI A Representative Consumer Theory of the Logit Model. AU Anderson, Simon P.; de Palma, Andre; Thisse, Jacques Francois. AA Anderson and de Palma: CEME, Universite Libre de Bruxelles. Thisse: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8643; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 13. PR No Charge. JE 022, 211, 212. KW Logit. Representative Consumer. Entropy. Deterministic Utility.

AB The logit model is usually derived from a discrete choice approach with stochastic utilities. It is shown here that the logit may also be derived from a very different conceptual basis, the representative consumer approach. Specifically, the logit results from the maximisation of a deterministic, entropy-type utility. This alternative view suggests a generalisation of the standard logit which allows total demand to be determined endogenously.

Anderson, Susan

TI The Costs and Benefits of the Soviet Empire, 1981-1983. AU Wolf, Charles Jr; Crane, Keith; Yeh, K. C.; Anderson, Susan; Brunner, Edmund; Edmund.

Andrews, Donald W. K.

PD April 1987. TI Inference in Econometric Models with Structural Change. AU Andrews, Donald W. K.;

Fair, Ray C. AA Yale University. SR Yale Cowles Foundation Discussion Paper: 832; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 58. PR No Charge. JE 211, 212. KW Chow Test. Dynamic Model. Econometric Model. Lagrange Multiplier Test. Likelihood Ratio Test. Structural Change. Wald Test. Nonlinear Model.

AB This paper extends the classical Chow (1960) test for structural change in linear regression models to a wide variety of nonlinear models, estimated by a variety of different procedures. Wald, Lagrange multiplier-like, and likelihood ratio-like test statistics are introduced. The results allow for heterogeneity and temporal dependence of the observations. In the process of developing the above tests, the paper also provides a compact presentation of general unifying results for estimation and testing in nonlinear parametric econometric models.

Aoki, Masanao

PD March 1987. TI How to Build State Space Models for Nonstationary Time Series and How to Measure Random Walk Components. AA Department of Economics, University of California, Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 438; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. PG 11. PR \$2.50 (checks payable to University of California Regents). JE 131, 132, 211. KW Unit Root. Trend. Nonstationary. State Space Model. Random Walk. Dynamic Walk. Dynamic Factor Model.

AB A two-step procedure of building state space models for vector-valued time series with trends is described. Then a new measure of random walk components in time series having unit root components is proposed to correct some undesirable features of those used in the literature. The quarterly United States real GNP from 1947.1 to 1986.2 is found to contain less than 10 per cent of random walk component.

PD March 1987. TI Evidences of Unit Roots and Co-Integration in the Time Series for U.S. GNP, M1 and CPI. AA Department of Economics, University of California, Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 439; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. PG 23. PR \$2.50 (checks payable to University of California Regents). JE 131, 132, 211. KW Unit Root. Cointegration. Dynamic Factor Model. State Space Model. Random Walk. Trend Dynamics. Short Run Dynamics. Common Factor.

AB Dynamic factor (state space) models are constructed for the United States M1 and CPI monthly time series with a common dynamic factor that explains significant movements in those two series. Discovery of such a common factor is equivalent to the notion of co-integration advanced by Granger. To this end, a recently developed method of Aoki is used to (i) first construct a low order dynamics for trend components and (ii) then the residuals are treated as weakly stationary to which another model is fitted. This procedure results in a recursive dynamic model in which short-run dynamics affects but is not

affected by the longer-run trend dynamics. This decomposition differs from the random detrending advanced by Kitagawa or Harvey because the latter produce block-diagonal dynamic matrices rather than block-triangular, i.e., the trend dynamics and shorter-run cyclical dynamics are not allowed to interact. When the procedure is applied to the bivariate monthly series of the United States M1 and CPI from January 1975 on, consisting of 117 data points, one dynamic factor is discovered common to both series, so that 1.13 CPI - M1 is co-integrated. The United States Gross National Product quarterly series exhibit the strongest evidence for the unit roots among the three series examined. Here the issue is how to define the random walk components. The paper proposes a measure different from that used by Nelson and Plosser and Cochrane. The real GNP series from 1974 seems to contain less than 6 per cent of the random walk components.

Arguelles, R.

TI Foreign Direct Investment and Indebted Developing Countries. AU Hickok, S.; Arguelles, R.

Attanasio, Orazio P.

PD December 1986. TI Staggered Price Decisions and Aggregate Nominal Inertia Empirical Evidence for the Seven Major OECD Economies. AA Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 268; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, England. PG 33. PR No Charge. JE 123, 227, 134, 023, 212. KW Staggered Prices. Nominal Inertia. OECD Countries. Non-linear Instrumental Variables.

AB The paper describes a simple model in which monopolistically competitive firms fix prices over discrete overlapping intervals and presents evidence for the seven biggest OECD countries. The model is estimated using non-linear instrumental variable techniques to take into account the restrictions on the parameters. A technique proposed by Hayashi and Sims to correct for the autocorrelation implied by the theoretical model is used. The data seems to be consistent with the model for five out of seven countries. For the remaining two countries, United States and Canada, the model does not seem to be appropriate.

Auerbach, Alan

PD March 1987. TI The Effects of Taxation on the Merger Decision. AU Auerbach, Alan; Reishus, David. AA Auerbach: National Bureau of Economic Research Cambridge. Reishus: Department of Economics, Harvard University. SR National Bureau of Economic Research Working Paper: 2192; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. KW Mergers. Tax Benefits. Acquisitions. Tax Reform Act of 1986. Tax Policy. Takeovers.

AB This paper presents estimates of the tax benefits generated by a sample of United States mergers and acquisitions involving two public corporations over the period 1968-83 and estimates a "marriage model" based on

differences between these mergers and another sample of "pseudomergers" that did not occur to determine the impact of these tax benefits on the probability of two firms combining. Our findings reject the hypothesis that leverage played a large role in fostering these transactions, and that the tax losses and credits of acquired firms likewise exerted no impact on merger activity. Though the use of such benefits by acquiring firms to shield profits of other firms did increase the level of activity, the impact was quite small. On the whole, our results suggest that the changes in tax provisions with respect to mergers introduced by the Tax Reform Act of 1986 will have a small impact on United States mergers and acquisitions.

Austen, Smith David

PD February 1987. TI Sophisticated Sincerity: Voting Over Endogenous Agendas. AA University of Rochester and California Institute of Technology. SR Caltech Social Science Working Paper: 630; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 13. PR No Charge. JE 025. KW Endogenous Agendas. Voting. Strategic Voting. Decision Making. Legislation.

AB The empirical findings on whether or not legislators vote strategically are mixed. This is at least partly due to the fact that to establish any hypothesis on strategic voting, legislators' preferences need to be known; and these are typically private data. In this note it is shown that, under complete information, if decision-making is by the amendment procedure and if the agenda is set endogenously, then sophisticated (strategic) voting over the resulting agenda is observationally equivalent to sincere voting. The voting strategies, however, are sophisticated. This fact has direct implications for empirical work on sophisticated voting.

Bachem, Achim

PD May 1986. TI Matroids Without Adjoint. AU Bachem, Achim; Wanka, Alfred. AA University of Cologne. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86.27; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 5. PR No Charge. JE 213. KW Levis Intersection Property. Matroid. Adjoint. Lattice.

AB The purpose of this short note is to give an example of a rank four matroid which not only shows that Levi's intersection property is not a sufficient condition for the existence of an adjoint but also seems to have an interesting structure of the lattice of flats.

Bailit, Howard L.

TI The Demand for Dental Care: Evidence from a Randomized Trial in Health Insurance. AU Manning, Willard G.; Bailit, Howard L.; Benjamin, Bernadette; Newhouse, Joseph P.

Baker, Jonathan B.

PD January 1987. TI Why Price Correlations Do Not Define Antitrust Markets: On Econometric Algorithms for Market Definition. AA Amos Tuck School of Business Administration, Dartmouth College. SR Federal Trade Commission Bureau of Economics Working Paper: 149;

Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Avenue NW, Washington, D.C. 20580. PG 52. PR No Charge. JE 612, 211, 611, 212. KW Market Definition. Price Correlations. Residual Demand Curve Estimation. Antitrust Enforcement. Cartel. AB This paper compares two econometric methods that have been proposed for market definition: price correlations and residual demand curve estimation. Econometric theory is used to demonstrate that price correlations among firms will likely contain little or no information relevant to defining antitrust markets, under the assumption that a hypothetical cartel facing a downward sloping residual demand curve constitutes an antitrust market (defined according to the DOJ Guidelines). Hence price correlation analyses are likely to have little value for antitrust market definition. In terms of the literature on empirical techniques for market definition, this paper shows that if the econometric market definition algorithm based on residual demand curve estimation of Scheffman and Spiller (1985) is correct, then the econometric market definition algorithms based on price correlations of Stigler and Sherwin (1985) and Horowitz (1982) will not be valuable for antitrust enforcement. In the process of establishing these results, the paper clarifies the significance for antitrust market definition of reduced form price equations for single firms.

Bardhan, Pranab

TI Credit Markets and Patterns of International Trade. AU Kletzer, Kenneth; Bardhan, Pranab.

Bartholdy, Jan

PD January 5, 1987. TI Taxation and the Firm's Leverage Decision: A Survey of Theoretical Issues. AU Bartholdy, Jan; Fisher, Gordon; Mintz, Jack. AA Department of Economics, Queen's University. SR Queen's Institute for Economic Research Discussion Paper: 674; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 73. PR \$3.00 Canada; \$3.50 United States and Foreign. JE 323, 521. KW Taxes. Capital Income. Financial Policy. Managerial Incentives Canada. Asymmetric Information. Leverage. Tax Structure. Capital Markets. AB This survey outlines various theoretical models that may be used to analyze the impact of taxation on the leverage decision of the firm. The models incorporate (i) differential taxation of households resulting from the progressivity of the tax system, (ii) loss offsetting under the corporate tax, (iii) managerial incentives to avoid moral hazard, (iv) bankruptcy, and (v) asymmetric information between outside and inside investors. The theory is specifically adapted to the Canadian tax structure which contains several important features such as differential corporate tax rates across industries, the openness of Canadian capital markets to foreign investment and the structure of personal taxes levied on capital income.

Bauer, Jack W.

PD December 1986. TI The Transition from Natural to Synthetic Gas. AU Bauer, Jack W.; MacAvoy, Paul W. AA Bauer: Chase Lincoln First Bank. MacAvoy: William E. Simon Graduate School of Business

Administration, University of Rochester. SR University of Rochester Center for Research in Government Policy and Business Working Paper: GPB86-08; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 47. PR NC single copies 50| each paper beyond 5 in each order. JE 721, 621, 632. KW Depletion. Synthetic Gas. Natural Gas. Backstop Technology.

AB Having established the need for and the viability of synthetic supplies, we address the net benefits to society of the transition from natural to synthetic supplies of gas.

Bean, Charles R.

PD November 1986. TI The Macroeconomic Consequences of North Sea Oil. AA Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 262; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 57. PR No Charge. JE 122, 212, 323, 431, 023, 132, 723, 632. KW North Sea Oil. Exchange Rates. Debt Neutrality. Manufacturing Sector. Oil Revenues. Tax Burden. Britain. United Kingdom. Petroleum.

AB The discovery of North Sea oil and the increase in real oil prices significantly increased national wealth. However, manufacturing output has declined both absolutely, and as a share of GDP, since 1973, while the real exchange rate has appreciated. Theoretical considerations suggest the two phenomena may be connected. A windfall of foreign exchange (in the form of oil) can be expected to lead to an expansion of services and a decline in manufacturing, and will generally produce an appreciation of the real exchange rate. Simulations of a small macroeconomic model suggest that without oil the real exchange rate would have been about 12 per cent lower in the first half of the eighties, but that manufacturing output would actually have been lower rather than higher. However, the oil price shocks also imparted a contractionary stimulus to the economy. The net effect of North Sea oil and the oil price shocks was to reduce manufacturing output by 2 per cent and raise services output by 1 1/4 per cent. Oil played a significant, but by no means exclusive role in the appreciation of Sterling in 1979-80. Evidence also suggests that consumers did not rationally anticipate the lowering of the tax burden due to oil. A debt-financed tax cut by the government was therefore called for during the second half of the seventies. Finally intergenerational equity suggests that surplus oil revenues above the "permanent income" equivalent should be invested. This would limit the contraction of the manufacturing sector and eliminate any re-entry problems due to "hysteresis" effects.

PD December 1986. TI Real Wage Rigidity and the Effect of an Oil Discovery. AA Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 269; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 15. PR No Charge. JE 431, 212, 323, 122, 824, 723, 632. KW North Sea Oil. Exchange Rates. Debt Neutrality. Rigid Wages. Petroleum. Overshooting.

AB This paper analyses the effect of an oil discovery when there is sluggish adjustment of real rather than nominal wages. A temporary recession (boom) will occur if the share of non-tradable employment in total employment is small (large) relative to the share of non-tradable consumption in total consumption and if the elasticity of non-tradable employment with respect to wages is small (large) relative to the wage elasticity of employment in tradables. It is also shown that the real exchange rate overshoots (undershoots) if there is a recession (boom).

PD January 1987. **TI** Budget Deficits, Interest Rates and the Incentive Effects of Income Tax Cuts. **AU** Bean, Charles R.; van, Wijnbergen Sweder. **AA** Bean: London School of Economics, Houghton Street, Aldwych, London WC2 2AE. van Wijnbergen: The World Bank, 1818 H Street Northwest, Washington DC 20433, United States of America. **SR** Centre for Economic Policy Research Discussion Paper: 153; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 37. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 023, 321, 323, 522, 441, 311. **KW** Budget Deficits. Interest Rates. Tax Cuts. Government Debt. Investment. Saving.

AB This paper examines the effects of tax cuts in a multi-country world where both labour supply and capital formation are endogenous and taxes are distortionary. We highlight four channels through which tax cuts affect interest rates and the economy in general: (i) an increase in the supply of government debt; (ii) increased tax revenues, through increased economic activity; (iii) increased savings, through an increase in the post-tax return on savings; (iv) increased investment, through an increase in the marginal product of capital. The increase in the marginal product of capital may be related to the tax change either directly, in the case of capital taxation, or indirectly, through changes in future factor prices triggered by the tax changes. The indirect channel is important in the case of labour taxes. Tax cuts do not necessarily lead to a rise in interest rates in either the short or the long term. Welfare both at home and abroad may either increase or decrease as a result of the tax cuts; no general statement can be made without explicitly identifying which distortionary taxes are being changed. Even then ambiguities can arise, but we are able, in our analysis of adjustment dynamics, to trace the response of the term structure of real interest rates to the tax reform in different cases.

PD January 1987. **TI** Budget Deficits, Interest Rates and the Incentive Effects of Income Tax Cuts. **AU** Bean, Charles R.; van, Wijnbergen Sweder. **AA** Bean: London School of Economics. van Wijnbergen: The World Bank. **SR** Centre for Economic Policy Research Discussion Paper: 153; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 37. **PR** 1 pound sterling (\$2.00) individuals; 1.50 pounds sterling (\$3.00) companies, libraries, institutions. **JE** 323, 321, 311, 313, 441. **KW** Budget Deficits. Interest Rates. Tax Cuts. Income Taxes. Adjustment Dynamics. Term Structure.

AB This paper examines the effects of tax cuts in a multi-country world where both labour supply and capital

formation are endogenous and taxes are distortionary. We highlight four channels through which tax cuts affect interest rates and the economy in general: (i) an increase in the supply of government debt; (ii) increased tax revenues, through increased economic activity; (iii) increased savings, through an increase in the post-tax return on savings; (iv) increased investment, through an increase in the marginal product of capital. The increase in the marginal product of capital may be related to the tax change either directly, in the case of capital taxation, or indirectly, through changes in future factor prices triggered by the tax changes. The indirect channel is important in the case of labour taxes. Tax cuts do not necessarily lead to a rise in interest rates in either the short or the long term. Welfare both at home and abroad may either increase or decrease as a result of the tax cuts; no general statement can be made without explicitly identifying which distortionary taxes are being changed. Even then ambiguities can arise, but we are able, in our analysis of adjustment dynamics, to trace the response of the term structure of real interest rates to the tax reform in different cases.

Becker, Robert A.

PD January 1987. **TI** Recursive Utility and Optimal Capital Accumulation, I: Existence. **AU** Becker, Robert A.; Boyd, John H.; Sung, Bom Yong. **AA** Becker: Department of Economics, Indiana University. Boyd: Department of Economics, University of Rochester. Sung: Korea Institute for Economics and Technology. **SR** University of Rochester Center for Economic Research Working Paper: 68; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 36. **PR** No Charge. **JE** 022, 111, 021. **KW** Recursive Utility. Upper Semicontinuity. Capital Stocks.

AB This paper demonstrates existence of optimal capital accumulation paths when the planner's preferences are represented by a recursive objective functional. Time preference is flexible. We cast our problem in terms of a general multiple capital good reduced-form model motivated by the Uzawa-Epstein-Hynes formulation of continuous-time recursive utility. Existence of optimal paths is addressed via the classical Weierstrass method. We thus choose a topology where the objective is upper semicontinuous and the feasible set is compact. This is the topology of uniform convergence of capital stocks on compact subsets. On feasible sets it is equivalent to weak convergence of investment flows under our maintained hypotheses. An improved version of a lemma due to Varaiya proves compactness. Unfortunately, Fatou's Lemma cannot be used to show preferences are upper semicontinuous as stock convergence in our topology does not imply the existence of a subsequence where the flow variables converge almost everywhere. A monotonicity argument is combined with a powerful theorem of Cesari to demonstrate upper semicontinuity.

Benjamin, Bernadette

TI The Demand for Dental Care: Evidence from a Randomized Trial in Health Insurance. **AU** Manning, Willard G.; Bailit, Howard L.; Benjamin, Bernadette; Newhouse, Joseph P.

TI The Demand for Dental Care: Evidence from a

Randomized Trial in Health Insurance. AU Manning, Willard G.; Bailit, Howard L.; Benjamin, Bernadette; Newhouse, Joseph P.

TI Use of Outpatient Mental Health Care - Trial of a Prepaid Group Practice Versus Fee-for-Service. AU Manning, W. G.; Wells, K. B.; Benjamin, B.

Berkowitz, M. K.

PD November 1986. TI Econometric Contests with Endogenous Monitoring. AU Berkowitz, M. K.; Kotowitz, Y. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8617; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 23. PR No Charge. JE 821, 510, 824. KW Competition. Contests. Monitoring. Tournaments. Piece Rates. Employee Promotions. Supervisors.

AB This paper attempts to analyze and explain the observed prevalence of tournaments in which promotions to supervisory positions constitute the prize. In contrast to the existing literature which argues that tournaments may be superior to piece rates in reducing risk, we find that even in the absence of risk aversion and common errors, tournaments may be superior to piece rates, because of limitations on capital availability to workers as represented by minimum wage requirements in our model.

Berliant, Marcus

PD January 1987. TI On the Continuum Approach of Spatial and Some Local Public Goods or Product Differentiation Models. AU Berliant, Marcus; ten, Raa Thijs. AA Berliant: Rochester University. ten Raa: Tilburg University. SR University of Rochester Center for Economic Research Working Paper: 72; Department of Economics, University of Rochester, Rochester, NY 14627. PG 37. PR No Charge. JE 021, 022, 611, 931. KW General Equilibrium. Location Theory. Land. Public Goods. Product Differentiation. Spatial Economies.

AB Models with a continuum of consumers and locations such that consumers can purchase goods in only one location are examined. Examples satisfying the usual assumptions but without equilibrium are given. An approximation by economies with a finite number of consumers is shown to fail. The results are related to the literatures concerning product differentiation and spatial economies.

Berninghaus, Siegfried

PD January 1986. TI Die Gittins-Index Methode: Ein neues Lösungsverfahren für Entscheidungsprobleme bei Unvollständiger Information. AA University of Konstanz. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-38; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. PG 19. PR No Charge. JE 021, 026. KW Linear Programming. Gittins Index Methode.

PD February 1986. TI On Price Adjustment Processes in Economies with Incompletely Informed Market Participants. AA University of Konstanz. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-53; Sonderforschungsbereich 303 an

der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 23. PR No Charge. JE 021, 026, 022. KW Competitive Market. Incomplete Information. Stochastic Equilibrium. Multi-Armed Bandit Paradigm. Price Search Rule.

AB Consumers are supposed to be incompletely informed about the dispersion of prices prevailing on the market in each period. Firms are supposed to be incompletely informed about the distribution of their own firm-specific demand functions. In a rather general setting where firms are gathering information by setting prices according to the Multi-armed bandit paradigm and consumers are applying a general price search rule it will be demonstrated that the resulting process of price dispersions converges (in a well defined sense) to a stochastic equilibrium.

PD March 1986. TI Price Adjustment Processes with Adaptively Price Setting Firms. AA University of Konstanz. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-43; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 19. PR No Charge. JE 021, 026, 022. KW Competitive Market. Price Adjustment Process. Incomplete Information. Price Search Rule.

AB The paper represents an extension of the theory of price adjustment processes without an auctioneer where consumers are incompletely informed about market prices and firms are incompletely informed about their own firm specific demand functions. Firms are supposed to apply a general stochastic price adjustment rule and consumers are supposed to apply a general price search rule. It can be demonstrated under these conditions that the resulting stochastic price adjustment process is a special case of a so-called "Generalized Random System with Complete Connections" whose convergence results are utilized for our economic adjustment process.

Besanko, David

PD September 1986. TI Delegation and Transfer Pricing in a Principal-Agent Model. AU Besanko, David; Sibley, David S. AA Besanko: Indiana University. Sibley: Bell Communications Research, Incorporated. SR Bell Communications Research Incorporated Economics Discussion Paper: 22; Room Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 30. PR No Charge. JE 511, 026, 025, 512. KW Procurement Contracting. Delegation. Decision Theory.

AB The purpose of this paper is to investigate some of the contracting issues that might arise in a procurement contracting setting when a purchased input decision is present. Specifically, the model focuses on a situation in which a planner (the principal) purchases a quantity of output from a supplier (the agent), who combines effort with a purchased input to produce the output. The first contracting issue examined in this context is the optimal degree of delegation of the purchased input decision when the quantity of the purchased input cannot be observed or contracted upon. When the planner delegates the purchased input decision in this case, we term his action "abdication." We show that it is neither optimal for the planner to completely abdicate responsibility for the purchased input decision nor to completely centralize that

decision. A second contracting issue examined in this paper is optimal transfer pricing in the case where the purchased input can be contracted upon. The principal result of this analysis is that when the supplier has better technological information than the planner, the optimal transfer price will not, in general, equal marginal cost.

PD January 1987. **TI** Antitrust Enforcement Under Asymmetric Information. **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: M8704; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 32. **PR** No Charge. **JE** 612, 916, 026, 022. **KW** Antitrust. Collusion. Enforcement. Asymmetric Information. Ramsey Pricing.

AB Optimal antitrust policy toward collusion to fix prices is examined in an asymmetric information setting. The antitrust authority does not know cartel costs and so cannot distinguish between a high cost competitive industry and a low cost cartel. The problem differs from principal-agent models since firms can choose competitive or collusive behavior. With costly enforcement, the authority is shown to commit itself to a schedule of probabilities of bringing suit which depends on the observed market price. Collusive firms moderate markups to reduce the risk of being prosecuted. Markups satisfy Ramsey-pricing rules.

Besen, Stanley M.

PD November 1986. **TI** Compatibility Standards, Competition, and Innovation in the Broadcasting Industry. **AU** Besen, Stanley M.; Johnson, Leland L. **AA** Rand Corporation. **SR** Rand Report: R-3453-NSF; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. **PG** 139. **PR** No Charge. **JE** 616, 613, 621, 635. **KW** Broadcasting Standards. Television. Cellular Radio. Regulation. Government Mandatory Standards. Communication. Technological Change.

AB This study surveys the theoretical literature dealing with the economics of compatibility standard setting and, using that literature as an analytic framework, it investigates a number of cases of standard setting in the broadcasting industry. These cases include both point-to-multipoint services (e.g. broadcast television) and point-to-point services (e.g. cellular radio). The goal is a better understanding of (1) the conditions under which compatibility standards are likely to be established through market forces, (2) the role that government agencies should play in mandating standards or in other ways encouraging standard setting, and (3) the conditions under which compatibility among technologies is economically efficient. Among its conclusions are that formal standard setting, either by government or private bodies, may be especially important where users lack knowledge of the preferences of others and where no technology is clearly preferred, and that mandatory standard setting should be avoided during the times when the technologies in question are rapidly changing. In addition, the justification for mandatory standards is weakest in cases where a particular technology has widely varying uses.

PD November 1986. **TI** Compatibility Standards, Competition, and Innovation in the Broadcasting Industry -- Executive Summary. **AU** Besen, Stanley M.; Johnson, Leland L. **AA** Rand Corporation. **SR** Rand Report: R-3453/1-NSF; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. **PG** 11. **PR** No Charge. **JE** 613, 616, 621, 635. **KW** Broadcasting Standards. Television. Cellular Radio. Regulation. Government Mandatory Standards. Communication. Technological Change.

AB This report is an executive summary of R-3453, which analyzes the forces that affect the development of standards in the broadcasting industry, the nature of the standards that emerge, and the economic effects of those standards.

Bester, Helmut

PD June 1986. **TI** Specific Skills, Imperfect Information And Job Rationing. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-58; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 20. **PR** No Charge. **JE** 811, 812, 821, 026, 823. **KW** Labor Markets. Specific Training. Job Rationing. Wages. Job Training.

AB The paper analyzes labor market equilibrium when job applicants cannot directly observe the amount of specific training that is provided by different firms. In the labor market equilibrium, the firms' wage offers convey information about the quality of their training. Because of this informational role, wages may fail to equilibrate demand and supply for all jobs. This results in an equilibrium with job rationing and unequal treatment among identical workers.

Blackorby, Charles

PD November 1986. **TI** Testing for the Existence of Input Aggregates in an Economy Production Function. **AU** Blackorby, Charles; Schworm, William; Fisher, Timothy. **AA** Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8646; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 53. **PR** No Charge. **JE** 022, 212. **KW** Production Technologies. Aggregation. Separability Tests. Functional Forms.

AB Any researcher investigating the characteristics of production technologies must make several decisions about the appropriate level of aggregation of the data and the appropriate interpretation of results obtained from aggregate data. While the benefits are substantial, the costs of using aggregate data can be high and are typically unknown. If data are aggregated inappropriately, then there is no stable functional relationship among the aggregate variables. Therefore, estimated parameters cannot be interpreted as characterizing such a relationship. In particular, the usual calculations of elasticities of substitution and price elasticities of factor, demands would produce numbers that are unrelated to the theoretical concepts. In this paper, we address three problems with previous tests of input aggregation. First, previous

specifications and tests of input aggregation have ignored the fact that an economy's technology is determined by the technologies of many independent producers. Second, all previous separability tests of which we are aware have tested for homothetic separability which is substantially stronger than separability. Third, separability tests have been plagued by problems with functional forms that degenerate to very special cases when separability restrictions are imposed. In this paper we present a general procedure for generating functional forms that can test for separability without degenerating to extreme special cases. We also present a particular example which, although not known to be flexible, is capable of modeling elaborate separability structures. In addition, the functional forms are capable of distinguish between separability and homothetic separability and between separability and input aggregation. Standard functional forms are unable to discriminate between separability and input aggregation.

PD November 1986. TI Necessary and Sufficient Conditions for Factor Price Equalization. AU Blackorby, Charles; Schworm, William; Venables, Anthony. AA Blackorby and Schworm: University of British Columbia. Venables: University of Sussex. SR Universite Catholique de Louvain CORE Discussion Paper: 8647; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 28. PR No Charge. JE 411, 022. KW Factor Price Equalization. International Trade.

AB There is a substantial literature on the conditions under which factor prices are the same in different countries that trade commodities but do not trade factors of productions. The conditions that have been presented in the literature as sufficient for factor price equalization (FPE) are quite restrictive. In this paper, we present necessary and sufficient conditions for FPE under quite general assumptions about the technologies of different countries. In particular, we assume each country has a concave technology relating an arbitrary number of traded goods and non-traded goods which permits joint production, decreasing returns to scale, and differences in the technologies of different countries. We present the necessary and sufficient conditions for FPE in terms of the economy's production function and in terms of the production functions of the firms that operate in countries with FPE. Our conditions are joint restrictions on the technologies and the endowments of countries. We demonstrate that the effects of relaxing the standard assumptions are substantial. The necessary and sufficient conditions we derive are consistent with joint production, decreasing returns to scale, and important differences in the technologies and endowments of different countries.

Blundell, Richard

PD February 1987. TI Econometric Approaches to the Specification of Life-Cycle Labour Supply and Commodity Demand Behaviour. AA Department of Economics, University College London. SR Centre for Economic Policy Research Discussion Paper: 150; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 62. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies,

libraries, institutions. JE 229, 810, 826, 212, 022. KW Intertemporal Substitution. Life-Cycle Labor Supply. Preference Restrictions. Intertemporal Separability. Panel Data. Demand Behavior.

AB Many of the recently developed alternative econometric approaches to the construction and estimation of life-cycle consistent models using individual data can be viewed as alternative choices for conditioning variables that summarise past decisions and future anticipations. By ingenious choice of this conditioning variable and by exploitation of the duality relationships between the alternative specifications, many currently available microdata sets can be used for the estimation of life-cycle consistent models. We review alternative approaches and highlight their stochastic properties and implicit preference restrictions. Indeed, empirical specifications that are parameterised in a form of direct theoretical interest often can be shown to be unnecessarily restrictive, while dual representations may provide more flexible econometric models. These results indicate the particular advantages of different types of data in retrieving life-cycle consistent preference parameters and the most appropriate and flexible econometric approach for each type of data. We develop a methodology for relaxing the intertemporal separability assumption and consider the advantages and disadvantages of alternative approaches in this framework.

PD February 1987. TI Unemployment and Female Labour Supply. AU Blundell, Richard; Ham, John; Meghir, Costas. AA Blundell and Meghir: University College London. Ham: University of Toronto. SR Centre for Economic Policy Research Discussion Paper: 149; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 45. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 820, 826, 840, 824, 917. KW Neoclassical Model. Labor Supply. Female Labor Force. Women. Involuntary Unemployment. Age. Demographic Characteristics. Marginal Wage Reduction.

AB Although the standard neoclassical model of female labour supply behaviour usually allows for the impact of demographic changes on value of female time in the household, the complexities of the tax and benefit system, and the influence of saving and borrowing on current period decisions, it does not allow for the possibility of involuntary unemployment. Women who are not working, that is, those who supply zero hours of labour, are assumed to do so voluntarily; the model does not allow for women who are not currently in employment and wanting to work but unable to obtain employment. This paper is an attempt to gauge how much the conclusions derived from the standard analysis of labour supply may have to be altered when we allow for such 'unemployed' workers. For the sample of married women in the UK which we investigate, the standard model appears to exaggerate the positive impact which reductions in marginal wages may have on participation and reduces the possibilities for a backward-bending supply curve of labour. The probability of being in a state of unemployment, as defined above, is found to depend on certain demand-side factors, age and a number of other demographic characteristics.

Boadway, Robin W.

PD 1986. TI Ex Post versus Ex Ante Optimal

Policies for Risky Activities. AU Boadway, Robin W.; Wildasin, David E. AA Boadway: Queen's University. Wildasin: Indiana University. SR Queen's Institute for Economic Research Discussion Paper: 676; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 45. PR \$3.00 Canada; \$3.50 United States and Foreign. JE 321, 322, 323, 821, 023. KW Risk. Taxation. Government Policy. Taxes. Subsidies. Labor Allocation.

AB This paper analyzes the role of government policy when random shocks affect particular industries, occupations, or regions. Workers can freely choose an industry or occupation *ex ante*, and can relocate, but only at a cost, once uncertainty is resolved. The policy instruments available to the government are per capita taxes and subsidies. These are chosen either to maximize *ex post* utilitarian aggregate welfare, treating the initial assignment of workers as exogenously fixed (*ex post* optimal policy), or to maximize the *ex ante* expected utility of a representative worker, taking the effect of policy choice on the *ex ante* allocation of labour into account (*ex ante* optimal). *Ex ante* and *ex post* optimal policies are compared, with or without institutional constraints on the set of instruments. Optimal policies range from complete equalization of net incomes across workers to no equalizing transfers at all.

Bock, Kurt

PD June 1986. TI Die Messung von Organisatorischen Veränderungen mit der Hilfe von Indikatoren aus Veröffentlichten Geschäftsberichten Deutscher Industrie AG's. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: D-5; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. PG 19. PR No Charge. JE 511.

Bold, Christoph

PD December 1986. TI Order-Degree Sequences. AA University of Cologne. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: 86/38; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 10. PR No Charge. JE 213. KW Ordered Vertex Colorings. Connectivity. Order-Degree Sequences. Coverings. Graphs. Independence Numbers.

AB We introduce a new graph theoretic parameter called order-degree sequence and study its impact on connectivity, edge connectivity, vertex and edge coverings and independence numbers. In this paper, all graphs are supposed to be simple. The following definition was inspired through ordered vertex colorings introduced by Cockayne and Thomason.

Bonnisseau, Jean Marc

PD November 1986. TI Valuation Equilibrium and Pareto Optimum in Nonconvex Economies. AU Bonniseau, Jean Marc; Cornet, Bernard. AA Centre for Operations Research and Econometrics, Université Catholique de Louvain and Université Paris I Pantheon-Sorbonne, France. SR Université Catholique de Louvain CORE Discussion Paper: 8536; Centre for Operations Research and Econometrics, Université

Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 17. PR No Charge. JE 022, 021. KW Second Welfare Theorem. Marginal Rule. Commodity Space. Pareto Optimum Allocation. Competitive Equilibrium.

AB In this paper, we report an extension of the second welfare theorem when both convexity and differentiability assumptions are violated. Our model allows various formalizations of the marginal rule and considers the general setting of a topological vector space of commodities.

Bos, Dieter

PD June 1986. TI Welfare Effects of Privatizing Public Enterprises. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-57; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 22. PR No Charge. JE 614, 024, 321. KW Privatization. Public Enterprises. Welfare Effects.

AB Privatization of public firms typically will -- raise efficiency which is welfare improving, -- raise the profits of the firm which is welfare reducing if it means increased prices, but welfare improving if the higher profits are redistributed among consumers as dividend payments. Given these different welfare effects of privatization: how many shares of a public firm shall be sold and what are the economic characteristics of an optimum privatization?

Boudreau, Bryan

TI Information, Returns, and Bidding Behavior in OCS Auctions: 1954-1969. AU Hendricks, Kenneth; Porter, Robert H.; Boudreau, Bryan.

Bournieux, Jean Marc

TI Agricultural Development Led Industrialization in a Global Perspective. AU Adelman, Irma; Bournieux, Jean Marc; Waelbroeck, Jean.

Boyd, John H.

TI Recursive Utility and Optimal Capital Accumulation, I: Existence. AU Becker, Robert A.; Boyd, John H.; Sung, Bom Yong.

Bradbury, Katharine L.

PD March 1987. TI City Taxes and Property Tax Bases. AU Bradbury, Katharine L.; Ladd, Helen F. AA Bradbury: Federal Reserve Bank of Boston. Ladd: Duke University. SR National Bureau of Economic Research Working Paper: 2197; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 324, 323. KW Property Taxes. Municipal Taxes. Tax Rates. Sales Tax.

AB This paper investigates the simultaneous relationship between tax rates and city property tax bases using data for 86 large United States cities in 1967, 1972, 1977, and 1982. We find that a 10 percent increase in the city's property tax rate decreases the city's tax base by about 1.5 percent. In addition, local income taxes and taxes levied by overlying jurisdictions (such as county and state governments) also have negative impacts on the city's

property tax base. Local sales taxes, in contrast, appear to have little impact. We conclude that taxes affect local property values more than is typically implied by previous studies that have investigated the impacts of state and local taxes on firms' location decisions.

Braga, de Macedo Jorge

PD March 1987. TI Currency Inconvertibility, Trade Taxes and Smuggling. AA UNL-New University of Lisbon. SR National Bureau of Economic Research Working Paper: 2177; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 916, 421, 422, 411, 431. KW Smuggling. Trade Taxes. Inconvertibility. Exchange Rate. Illegal Trade. Black Market. Confiscation. Capital Flight.

AB In the classic analysis of smuggling importers choose the optimal mix of legal and illegal trade, given trade taxes and the technology of detection. This paper introduces an inconvertible currency in the framework, so that illegal trade is valued at a rate higher than the (fixed) official exchange rate. Sections 1 and 2 show how the smuggling ratio and the domestic price markup for the import and export good are simultaneously determined. With balanced legal and illegal trade, changes in the (long-run) black market premium are a weighted average of changes in trade taxes, whereas changes in the smuggling ratios depend on the ratio of trade taxes. Thus, an import tariff and an export subsidy rising at the same rate would keep smuggling ratios constant but imply a rising black market premium (section 3 and 4). To determine the quantity of exports and imports, a model of the economy is presented in section 5, featuring the production of exports and non-traded goods and the consumption of imports and non-traded goods, as well as a government confiscating the amounts of traded goods unsuccessfully smuggled. Then export production may fall, and welfare may rise, if trade taxes have a negative effect on the relative price of exports and imports stronger than the positive effect on smuggled exports and imports, which is always welfare-reducing. Section 6 introduces the short-run determination of the black market premium via portfolio balance. In this case, rising trade taxes may be associated with a premium rising even faster if there is unreported capital flight and conversely.

Breusch, Trevor S.

TI Dynamic Specification, the Long Run and the Estimation of Transformed Regression Models. AU Wickens, Michael; Breusch, Trevor S.

TI Dynamic Specification, The Long Run and the Estimation of Transformed Regression Models. AU Wickens, Michael; Breusch, Trevor S.

Broecker, Thorsten

PD December 1986. TI Credit-Worthiness Tests and Interbank Competition. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-87; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. PG 37. PR No Charge. JE 315, 312, 026, 611. KW Competitive Credit Markets. Interbank Competition. Interest Rate Differentials. Risk.

AB This paper analyzes the structure of equilibria in a competitive credit market where firms apply for a loan of fixed size. There are two types of firms which differ in their ability to repay the credit. Banks have equally reliable tests at their disposal with which they can imperfectly monitor types. Furthermore, these tests are stochastically independent. The prominent feature of the interbank competition is the creation of externalities by interest rate differentials: banks charging high interest rates will only test firms which have not passed the test of low interest rate banks. (Mixed) Equilibria will be determined for a one-stage and a two-stage game of the interbank competition. It then turns out that in both cases equilibria where all banks provide credit at the same interest rate cannot exist. In fact, in the latter case, we will obtain equilibria where just one bank provides credit at the zero profit interest rate.

Brunner, Edm

TI The Costs and Benefits of the Soviet Empire, 1981-1983. AU Wolf, Charles Jr; Crane, Keith; Yeh, K. C.; Anderson, Susan; Brunner, Edmund; Edmund.

Buiter, Willem

PD September 1986. TI Structural and Stabilization Aspects of Fiscal and Financial Policy in the Dependent Economy. AA Economic Growth Center, Yale University, United States of America. SR Centre for Economic Policy Research Discussion Paper: 128; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 321, 323, 023. KW Fiscal Policy. Financial Policy. Public Expenditure. Tax Structure. Population Growth. Balanced-Budget Policies.

AB The paper considers the response of a small, open dependent economy to a variety of fiscal and financial shocks. It also examines the influence of alternative budget-balancing rules on the response of the economy to external shocks, such as a change in the world interest rate. The approach allows for both uncertain individual lifetimes and population growth, using a slightly generalized version of the Yaari-Blanchard model of consumer behaviour. Debt neutrality does not prevail unless the sum of the population growth rate and the individual's probability of death equals zero. The government spends on traded and non-traded goods and raises tax revenue both through a lump sum tax and through a distortionary tax on the production of traded goods. Even though the tax on the production of traded goods is the only conventional distortion in the model, changes in this tax rate will have first-order real income effects even when the distortion is evaluated at a zero tax rate, as long as the individual's subjective pure rate of time preference differs from the interest rate. This can occur even in well-behaved steady states of the Yaari-Blanchard model, as long as the sum of population growth rate and the probability of death differs from zero. This "intrinsic" distortion effectively causes second-best arguments to apply even when there is only one conventional distortion. Even in the absence of government budget deficits, fiscal choices relating to the composition of public spending and the structure of

taxation have important short- and long-term consequences for the real exchange rate, the sectoral allocation of production, and the level and composition of private consumption. They also affect the current account in the short run and the nation's stock of claims on the rest of the world in the long run.

PD September 1986. **TI** Fiscal Prerequisites for a Viable Managed Exchange Rate Regime: A Non-Technical Eclectic Introduction. **AA** Department of Economics, Yale University, United States of America. **SR** Centre for Economic Policy Research Discussion Paper: 129; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 321, 431, 134, 322, 311. **KW** Exchange Rate Regimes. Exchange Rates. Inflation Fiscal Policy. Monetary Theory.

AB The paper first reviews the budget identities of the fiscal and monetary authorities and the solvency constraint or present value budget constraint of the consolidated public sector, for both closed and open economies. It then discusses the new conventional wisdom concerning the fiscal roots of inflation and the budgetary prerequisites for generating and stopping hyperinflation. The popular rational expectations model of "Unpleasant Monetarist Arithmetic" of Sargent and Wallace yields ambiguous predictions concerning the response of inflation to an increase in the fundamental deficit. In addition the model is incapable of generating hyperinflation: the only runaway, explosive or unstable behaviour the model can exhibit is "hyperdeflation" In the open economy, the need to maintain a managed exchange rate regime and the government's need to remain solvent do not impose any constraint on the growth rate of domestic credit. Obstfeld's proposition to the contrary is due to the omission of government bonds and borrowing in his analysis. There is not yet any "deep structural" theory justifying the (exogenous) lower bounds on the stock of foreign exchange reserves which are a characteristic assumption of the literature on collapsing exchange rate regimes. In the absence of such a theory of "international liquidity", one cannot construct a satisfactory model of a foreign exchange crisis that is not at the same time a government solvency crisis. If it is assumed that such lower bounds do exist, the existence of a pecuniary opportunity cost to holding reserves influences whether particular fiscal and financial policy choices are consistent with the prolonged survival of a managed exchange rate regime.

PD December 1986. **TI** Granger Causality and Policy Ineffectiveness: A Rejoinder. **AA** Department of Economics, Yale University, Box 1972, Yale Station, United States of America. **SR** Centre for Economic Policy Research Discussion Paper: 126; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 023, 026, 211. **KW** Granger-Causality. Policy Effectiveness. Rational Expectations.

AB In an earlier paper "Granger-causality and Policy Effectiveness" *Economica* (1984), I showed that for a policy instrument x to Granger-cause some target variable y it is not necessary for x to be useful in controlling y .

(The argument that it is not sufficient was already familiar, e.g. from the work of Sargent). Using a linear rational expectations model I showed that x would fail to Granger-cause y (while y did, in some cases, Granger-cause x) if x were set by a variety of optimal, time-consistent or ad hoc policy feedback rules. Yet in all the examples, x was an effective policy instrument. In response to some comments by Professor Granger, I now show that my earlier results are unaffected when the following 3 concessions to "realism" are made: 1. Controllers do not have perfect control of the instruments (this was already allowed for in my earlier paper). 2. Governments may use a different information set to determine instruments from that used by the public. 3. The controller may not have a perfectly specified or estimated model of the economy. The analysis confirms that Granger-causality tests are uninformative about the presence, absence, degree or kind of policy (in)effectiveness.

Burda, Michael C.

PD May 1987. **TI** Institutional Aspects of High Unemployment in the Federal Republic of Germany. **AU** Burda, Michael C.; Sachs, Jeffrey D. **AA** Burda: Harvard University. Sachs: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2241; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 122, 130, 824, 823. **KW** Unemployment. Germany. Labor Shortage. Joblessness.

AB The sustained rise in German unemployment since 1973 poses a problem of critical importance for the world economy. Fewer than two decades ago, Germany boasted an average unemployment rate of under 1 per cent and imported labor to relieve chronic labor shortages. By the mid-1980s, unemployment had risen to over 8 per cent of the labor force. This paper investigates some of the reasons for the secular rise in unemployment. We find that while deficient aggregate demand can probably explain some of the current joblessness, the secular rise in unemployment has consisted primarily of an increase in the equilibrium rate of unemployment. We also find little evidence that this increase is due to changes in frictional unemployment. Rather, after reviewing institutional details of the labor market in Germany, we identify various impediments to the kinds of structural adjustments that have operated to maintain a fairly constant equilibrium rate of unemployment in the United States.

Butz, William P.

TI Circular Migration and Young Child Malnutrition in Guatemala. **AU** Teller, Charles H.; Butz, William P.

Cameron, Trudy Ann

PD February 13, 1987. **TI** Valuing Public Goods Using Referendum Data: Estimation Assuming a Logistic Error Distribution. **AA** Department of Economics, University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 430; Department of Economics - University of California at Los Angeles, Los Angeles, CA 90024. **PG** 28. **PR** \$2.50. **JE** 211, 721, 722. **KW** Contingent Valuation. Referendum Data. Logistic

Censored Regression. Nonmarket Resource Valuation. Public Goods.

AB In an earlier study, we developed a reparameterisation of a conventional maximum likelihood probit model which allows estimation of regression-like coefficients with variable-threshold "referendum" data. The procedure, however, requires repeated evaluation of the integral of the standard normal density function. Since this can be expensive, the present paper describes a logistic analog, where the requisite integrals are simple closed forms. Additionally, since earlier researchers have based their analyses on conventional maximum likelihood logit estimates, we can show how their point estimates can be transformed very simply to yield precise formulas for their underlying inverse demand functions.

Campbell, John Y.

PD March 1986. TI Cointegration and Tests of Present Value Models. AU Campbell, John Y.; Shiller, Robert J. AA Campbell: Department of Economics, Princeton University. Shiller: Cowles Foundation, Yale University. SR Princeton Econometric Research Program Memorandum: 323; Department of Economics, Princeton University, Princeton, NJ 08544. PG 41. PR \$2.00. JE 210, 211, 212, 313. KW Cointegration. Present Value models. Interest Rate. Optimal Forecast. VAR. Vector Autoregression. Stock Prices.

AB In a model where a variable Y_t is proportional to the present value, with constant discount rate, of expected future values of a variable y_t , the "spread" $S_t = Y_t - \theta y_t$ will be stationary for some θ whether or not y_t must be differenced to induce stationarity. Thus, Y_t and y_t are cointegrated. The model implies that S_t is proportional to the optimal forecast of ΔY_{t+1} , and also to the optimal forecast of S_t^* , the present value of future Δy_t . We use vector autoregressive methods, and recent literature on cointegrated processes, to test the model. When Y_t is the long-term interest rate and y_t the short-term interest rate, we find in postwar United States data that S_t behaves much like an optimal forecast of S_t^* even though as earlier research has shown it is negatively correlated with ΔY_{t+1} . When Y_t is a real stock price index and y_t the corresponding real dividend, using annual United States data for 1871-1986 we obtain less encouraging results for the model, although the results are sensitive to the assumed discount rate.

PD February 1987. TI Permanent and Transitory Components in Macroeconomic Fluctuations. AU Campbell, John Y.; Mankiw, N. Gregory. AA National Bureau of Economic Research, Cambridge. SR National Bureau of Economic Research Working Paper: 2169; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 131, 212, 023. KW Economic Fluctuation. Business Cycle. Random Walk. Gross National Product.

AB Fluctuations in real Gross National Product have traditionally been viewed as transitory deviations from a deterministic time trend. The purpose of this paper is to review some of the recent developments that have led to a new view of output fluctuations and then to provide some additional evidence. Using post-war quarterly data, it is hard to reject the view that real GNP is as persistent as a

random walk with drift. We also consider the hypothesis that the recent finding of persistence are due to the failure to distinguish the business cycle from other fluctuations in real GNP. We use the measured unemployment rate to decompose output fluctuations. We find no evidence for the view that business cycle fluctuations are more quickly trend-reverting.

Carlton, Dennis W.

PD March 1987. TI The Theory and the Facts of How Markets Clear: Is Industrial Organisation Valuable for Understanding Macroeconomics? AA University of Chicago, Graduate School of Business. SR National Bureau of Economic Research Working Paper: 2178; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 611, 023. KW Industrial Organization. Price Behavior. Dynamic Oligopoly. Non-Price Rationing. AB This paper examines what industrial organization economists know and don't know about how markets clear. It reviews the empirical evidence which shows that, at least for some industries, price behavior is peculiar with prices failing to adjust over long periods of time. The paper discusses several existing theoretical explanations for the peculiar behavior such as fixed cost to changing price information asymmetries and theories of dynamic oligopoly. The paper goes on to develop some new theories to explain the observed behavior. The new explanations rely heavily on the importance of a seller's knowledge of his customers and on the optimality of non-price rationing. The paper discusses what relation, if anything, macroeconomics has to industrial organization.

Carr, Jack

PD September 1986. TI Unlimited Liability and Free Banking in Scotland. AU Carr, Jack; Glied, Sherry; Mathewson, Frank. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8612; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 16. PR No Charge. JE 044, 312, 612. KW Limited Liability. Free Banking. Scotland. Britain. AB Lawrence White (1984) in his book *Free Banking in Britain* examines the free banking period in Scotland in the eighteenth and nineteenth centuries. Unlimited liability restrictions were imposed by law on most Scottish banks during the period (with the exception of three banks located in Edinburgh). White dismisses the impact of these restrictions on the grounds that when they were lifted, banks took twenty years to adopt limited liability. In our view, White misinterprets the historical evidence. We believe that unlimited liability restrictions were a serious impediment to vigorous competition among these banks and a device designed to protect the rents that accrued to the initial shareholders of the three Edinburgh banks enjoying the privilege of limited liability.

PD November 1986. TI The Size of the Government Sector and Economic Growth. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8616; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 16. PR No Charge. JE 111, 212, 321, 322, 221. KW Economic Growth. National Income

Accounts. Government Expenditure.

AB There have been recent empirical studies which claim to show a positive effect of government activity on economic growth. This paper argues that these results are a figment of the data. National income accountants treat all government expenditures as expenditures on final goods. Hence there is a double counting of government expenditures on intermediate goods. This leads to a bias in testing the hypothesis of the effect of government size on economic growth.

PD March 1987. **TI** The Economics of the Legal Organization of Firms. **AU** Carr, Jack; Mathewson, Frank. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8705; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 46. **PR** No Charge. **JE** 811, 835, 511. **KW** Partnerships. Liability Rules. Competitive Markets. Sole Proprietorships. Legal Services. Law Firms. Lawyers. Brand Names.

AB We address several issues on the economics of the firm, in particular on the form of organization. We are interested in the survival value of ownership coalitions in competitive markets for complex services such as law, medicine, architecture and accounting. Are sole proprietorships or partnerships more efficient in the delivery of these services to clients? How do small and large demanders of these services organize their efforts to obtain the best deals in the marketplace? How does competition discipline suppliers to serve the needs of naive and uninformed consumers? In our view, the efficient creation and maintenance of brand-name or specific capital is the key to answering these questions. In particular, we focus on the legal service industry. We build a model that seeks to answer these questions through the application of the economics of control and agency. This model yields a set of predictions. Some predictions are tested formally with a 1977 sample of United States law firms; others are tested informally against a number of stylized facts. The formal tests provide support for our model. Where premia as quasi-rents underwrite brand-name investments as signals, clients monitor lawyers more assiduously. In turn, client monitoring promotes lawyer honesty and reduces brand-name investment by lawyers. We model and test the demand by corporate clients for in-house counsel and relate this to the emergence of smaller specialized law firms -- boutique law firms. Informally we are able to explain the efficiency of certain rules such as a lock-step remuneration scheme historically used by most large law firms where partners of equal vintage collect equal pay with senior partners collecting the largest share of the profits indifferent to relative productivity. We offer some insight into the organizational impact of limited liability for malpractice suits against lawyers in partnerships. Finally, we develop an assignment rule for cases and predict that smarter lawyers will be found in the larger law firms.

Chalfant, James A.

PD January 1986. **TI** The Effects of Monetary Policy on United States Agriculture. **AU** Chalfant, James A.; Love, H. Alan; Rausser, Gordon C.; Stamoulis, Kostas G. **AA** Department of Agricultural and Resource Economics,

University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 409; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 51. **PR** \$10.20. **JE** 713, 311, 212, 712, 321. **KW** Monetary Policy. Agriculture. Exchange Rates. Agricultural Policy. Farm Income. Overshooting. Fiscal Policy.

AB The effects of monetary policy on agriculture are discussed in the context of a fix-price, flex-price model of the economy. It is shown that the prices of auction-market goods such as agricultural commodities can overshoot their long-run equilibrium levels in response to changes in monetary policy. This is directly related to the stickiness of prices of other commodities, and is a generalization of the Dornbusch model of exchange-rate overshooting. Empirical evidence for both the United States and Australia supports this assumption that different prices have different adjustment speeds. A small-scale, quarterly econometric model of the United States economy is described. The model includes an agricultural sector with flexible prices, a non-agricultural sector with sticky prices, and a small international sector. Emphasis is on the inclusion of policy variables, both macroeconomic and agricultural-sector specific, and on the linkages between sectors. Simulation experiments designed to examine the effects of monetary policy are then discussed. The experiments are conducted using the econometric model, maintaining the fix-price, flex-price distinction. Assuming a continuation of the programs in the United States 1981 Farm Bill, the behavior of the agricultural sector under alternative growth rates of the money supply is examined. These are obtained by varying the extent to which the Federal Reserve is assumed to monetize the Federal deficit. The results show substantial adverse effects on prices, farm incomes, and government outlays following a shift to a regime of expansionary fiscal policy with tight money. The paper concludes with a discussion of some policy implications and an examination of alternatives for the 1985 Farm Bill.

Chamley, C.

PD November 1986. **TI** Linear Incentive Schemes to Control Public Firms. **AU** Chamley, C.; Marchand, M.; Pestieau, P. **AA** Chamley: The World Bank. Marchand Pestieau: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8641; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 16. **PR** No Charge. **JE** 025, 614, 510. **KW** Incentives. Public Firm. Government Control. Social Welfare. Principal-Agent.

AB The basic setting of this paper is that of a government and a public firm which pursue different objectives and do not possess the same information. The public manager typically desires the highest compensation for the lowest effort whereas the government's aim is social welfare. Its control of the public firm is hindered by its lack of information on the firm's technology and the manager's effort. Given this setting, we deal with a linear compensation rule which is based on variables observed by

the government, i.e. labor and output. This rule should be designed to induce the manager to achieve the government's objective as much as possible. The paper focuses on the following issue: how far should the public manager's compensation rule encourage him to hire more or less labor? This is shown to depend upon several factors such as the elasticity of substitution between labor and effort and the output elasticity of the marginal social benefit. A linear schedule is clearly at odds with most findings in the principal-agent literature; it is here adopted for the ease of its practical implementation but by no means does it facilitate the analysis.

Chang, Gerard J.

PD September 1986. TI MPP-Greedoids. AA National Central University, Taiwan, ROC. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86436-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 11. PR No Charge. JE 213. KW Greedoid. Matroid. Poset. Polytope. Polymatroid.

AB The main purpose of this paper is to unify matroids and posit greedoids from polyhedral point of view. In particular, we define MPP-greedoids as greedoids having certain polytopes which cover matroid polytopes and posit greedoid polytopes as special cases. Properties of MPP-greedoids and relations between MPP-greedoids and polymatroids are studied.

Cheng, Harrison H. C.

PD March 1987. TI The Existence of Arbitrage-Free Equilibria in Banach Spaces. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8712; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 17. PR No Charge. JE 021, 213. KW Existence of Equilibria. Arbitrage-Free Condition. Banach Spaces. Consumption Constraints. Efficiency Allocations.

AB An existence result is presented for commodity spaces which are Banach spaces (or more generally normed spaces). There are general consumption constraints in the model. Equilibria satisfy the arbitrage-free condition and are always efficient. The set of individually rational efficient allocations is homeomorphic to the (finite dimensional) utility simplex. We do not use any lattice arguments. A sequel of this paper deals with the more general theory.

Chew, Soo Hong

PD January 1987. TI The Rationality of Accepting Compounds of Unattractive Gambles. AU Chew, Soo Hong; Epstein, Larry G. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8702; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 10. PR No Charge. JE 022, 026. KW Law of Large Numbers. Non-Expected Utility Orderings. Gamble. Risk Aversion. Preference Ordering.

AB A compound of many independent replicas of a gamble may be chosen by a risk averter even if the single

gamble would be rejected given any initial wealth level. Samuelson has shown that such choices are impossible if the expected utility theory of preference is adopted. But they are consistent with more general theories of preference. Consequently, the intuition suggested by the law of large numbers can be correct.

PD January 1987. TI Non-Expected Utility Preferences in a Temporal Framework With an Application to Consumption-Savings Behaviour. AU Chew, Soo Hong; Epstein, Larry G. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8701; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 45. PR No Charge. JE 022, 026. KW Non-Expected Utility. Temporal Consistency. Risk Aversion. Preference Ordering. Intertemporal Substitution.

AB This paper investigates the role of non-expected utility preferences in a multiperiod consumption/savings framework. Four objectives are achieved: First, the link between expected utility theory and the consistency of preferences is elucidated. Then it is shown that behaviour can be intertemporally consistent even if the preference ordering is not. Third, non-expected utility preference orderings are shown to be useful for disentangling the elasticity of intertemporal substitution from the degree of risk aversion. Thus they permit comparative risk aversion analysis to be performed. Finally, some discrimination between the non-expected utility theories that have appeared in the atemporal literature is achieved by means of axioms which arise naturally from the multiperiod framework.

PD April 1987. TI The Structure of Preferences and Attitudes Towards the Timing of the Resolution of Uncertainty. AU Chew, S. H.; Epstein, L. G. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8706; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 28. PR No Charge. JE 026, 022. KW Temporal Resolution of Uncertainty. Weighted Utility. Implicit Weighted Utility. Expected Utility. Consistency. Timing Premium.

AB This paper is concerned with the phenomenon of preference for timing in the temporal resolution of uncertainty and its implications for the structure of utility functionals defined on multiperiod consumption programs. Several postulates concerning attitudes towards timing are stated using a new definition of timing premium for early resolution of uncertainty. The analysis provides an axiomatic basis for the specifications of expected utility and the more general weighted utility and implicit weighted utility functionals in temporal models.

Chow, Gregory C.

PD August 1986. TI Money and Price Level Determination in China. AA Department of Economics, Princeton University. SR Princeton Econometric Research Program Memorandum: 327; Department of Economics, Princeton University, Princeton, NJ 08544. PG 24. PR \$2.00. JE 121, 052, 027, 131, 132, 134, 311. KW China. Inflation. Quantity Theory. Money Supply.

AB The quantity theory of money provides a useful starting point in explaining the price level in China. The ratio of money supply to real output is an important variable in explaining the price level, but the elasticity is below unity, suggesting that velocity is not constant. A short-run model for changes in the price level explains the Chinese annual data from 1952 to 1983 better than the United States data from 1922 to 1953. This model is stable after 1979 and forecasts well in 1984.

PD August 1986. **TI** Development of a More Market-Oriented Economy in China. **AA** Department of Economics, Princeton University. **SR** Princeton Econometric Research Program Memorandum: 326; Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 18. **PR** \$2.00. **JE** 124, 121, 220, 045, 052. **KW** China. Planned Economy. Market Economy. Economic Development. State-Owned Enterprises.

AB After describing the economic institutions for agriculture and industry in China before 1978, this paper points out the reasons for and the key elements of economic reform. It then discusses the major issues currently being deliberated by the leading economic reform officials regarding reform of the price system, the administrative structure of state-owned enterprises, the banking system and macroeconomic control mechanisms, and foreign trade and investment. Finally future prospects of the reform and of China's economic development will be indicated.

PD October 1986. **TI** Are Expectations Rational in Present Value Models? **AA** Department of Economics, Princeton University. **SR** Princeton Econometric Research Program Memorandum: 328; Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 18. **PR** \$2.00. **JE** 212, 023, 211. **KW** Rational Expectations. Adaptive Expectations. Present Value Models. Stock Prices. Dividends. Interest Rates.

AB The objective of this paper is threefold. First, it applies more elementary methods to estimating and testing present value models under rational expectations than those used in related recent studies, including for example the studies of Campbell and Shiller (1986) and West (1986). Comparison of the results obtained by the simpler methods presented here with those obtained by more sophisticated methods may be of interest. Second, it shows clear and strong evidence that the hypothesis of rational expectations should be rejected. In the last decade, the hypothesis of rational expectations has stimulated much interesting research in economics, although many economists remain skeptical of its empirical validity. Lovell (1986) provides a survey of some evidence bearing on this issue. The evidence presented here may convince some readers that the hypothesis of rational expectations should not be taken for granted in empirical research. Third, it demonstrates that the hypothesis of adaptive expectations explains the data much better than rational expectations. The data are concerned with the relations between the price of a portfolio of stocks and the expected future dividends derived from them, and between long-term and expected future short-term interest rates.

Christiano, Lawrence J.

PD January 1987. **TI** Is Consumption Insufficiently Sensitive to Innovations in Income? **AA** Research Department, Federal Reserve Bank of Minneapolis. **SR** Federal Reserve Bank of Minneapolis Staff Report: 106; Federal Reserve Bank of Minneapolis, 250 Marquette Avenue, Minneapolis, MN 55480. **PG** 14. **PR** N/A. **JE** 131, 023. **KW** Representative Agent Model. Consumption. Permanent Income Hypothesis. Interest Rates. Time Series.

AB Deaton (1986) has noted that if income is a first-order autoregressive process in first differences, then a simple version of Friedman's permanent income hypothesis (SPIH) implies that measured United States consumption is insufficiently sensitive to innovations in income. This paper argues that this implication of the SPIH is a consequence of the fact that it ignores the role of the substitution effect in the consumption decision. Using a parametric version of the standard model of economic growth, the paper shows that very small movements in interest rates are sufficient to induce an empirically plausible amount of consumption smoothing. Since an overall evaluation of the model's explanation for the observed smoothness of consumption requires examining its implications for other aspects of the data, the paper also explores some of these.

PD February 1987. **TI** Money Does Granger-Cause Output in the Bivariate Output-Money Relation. **AU** Christiano, Lawrence J.; Ljungqvist, Lars. **AA** Christiano: Research Department, Federal Reserve Bank of Minneapolis. Ljungqvist: University of Minnesota. **SR** Federal Reserve Bank of Minneapolis Staff Report: 108; Federal Reserve Bank of Minneapolis 250 Marquette Avenue Minneapolis, MN 55480. **PG** 12. **PR** No Charge. **JE** 211, 311. **KW** Monte Carlo Simulation. Vector Autoregression. Granger Causality. Unit Root.

AB A bivariate Granger-causality test on money and output finds statistically significant causality when data are measured in log levels, but not when they are measured in first differences of the logs. Which of these results is right? The answer to that question matters because a finding of no Granger-causality from money to output would substantially embarrass existing business cycle models in which money plays an important role (Eichenbaum and Singleton (1986)). Monte Carlo simulation experiments indicate that, most probably, the first difference results reflect lack of power, whereas the level results reflect Granger-causality that is actually in the data.

Christopeit, Norbert

PD January 1985. **TI** Strong Consistency of Least Squares Estimators in the Monotone Regression Model with Stochastic Regressors. **AU** Christopeit, N.; Tosstorff, G. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-39; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 32. **PR** No Charge. **JE** 211. **KW** Least Squares. Monotone Regression. Stochastic Regressors. Consistency. Nonlinear Regression.

AB In this paper it is shown that in the monotone

regression model the unknown regression function can be consistently estimated by the least squares method.

PD May 1985. **TI** Asymptotic Properties of Least-Squares Estimators in Semimartingale Regression Models. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-40; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 6. **PR** No Charge. **JE** 211. **KW** Least Squares. Stochastic Regressors. Semimartingale Regression Models. Asymptotic Properties.

AB This paper discusses the asymptotic properties of least squares estimators in semimartingale regression models.

Chung, Alan

TI Supply-Oriented Macroeconomics: The MACE Model of Canada. **AU** Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre; Chung, Alan.

Clotfelter, Charles T.

PD May 1987. **TI** Implicit Taxation in Lottery Finance. **AU** Clotfelter, Charles T.; Cook, Philip J. **AA** Duke University. **SR** National Bureau of Economic Research Working Paper: 2246; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. **PR** \$2.00. **JE** 324, 635, 026. **KW** Lottery Games. State Lotteries. Gambling. Implicit Lottery Tax.

AB State lotteries as they are operated in the United States today involve four distinct aspects: legalization of lottery games, monopolistic provision by the state, marketing of lottery products, and extraction of a portion of the surplus they derive from sales for state revenue. In this paper we use conventional tools of applied public finance to examine the implicit tax levied by lottery agencies through this fourth function. We examine the incidence of the implicit lottery tax, focusing on the dominant lottery games used in the 1980s. We find that the implicit tax is regressive in virtually all cases. We then consider whether the implicit tax rate on lotteries is too high, comparing that rate to excise tax rates on alcohol and tobacco.

Cook, Philip J.

TI Implicit Taxation in Lottery Finance. **AU** Clotfelter, Charles T.; Cook, Philip J.

Cornet, Bernard

PD August 1986. **TI** The Second Welfare Theorem in Nonconvex Economies. **AA** Centre for Operations Research and Econometrics, Université Catholique de Louvain. **SR** Université Catholique de Louvain CORE Discussion Paper: 8630; Centre for Operations Research and Econometrics, Université Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 15. **PR** No Charge. **JE** 021, 022, 024. **KW** Second Welfare Theorem. Convexity. Differentiability.

AB The purpose of this paper is to report an extension of the second welfare theorem when both convexity and differentiability assumptions are violated.

TI Valuation Equilibrium and Pareto Optimum in Nonconvex Economies. **AU** Bonnisseau, Jean Marc; Cornet, Bernard.

Cotterman, Robert F.

PD July 1986. **TI** Forecasting Enlistment Supply: A Time Series of Cross Sections Model. **AA** The Rand Corporation. **SR** Rand Report: R-3252-FMP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 74. **PR** No Charge. **JE** 114, 824, 813, 212. **KW** Military. Enlistments. Manpower. Recruitment. Panel Data. GI Bill.

AB Because the military relies on voluntary enlistments to fill its entry-level positions, there has been widespread interest in estimating how military enlistments respond to various supply factors, both those originating in the civilian sector (e.g., business cycles) and those over which the military exerts some control (e.g., recruiters). To help the military anticipate manpower shortages before they develop, these estimated supply parameters are used to predict the future course of enlistments under various hypothetical situations. This report documents research on a model of the supply of high-aptitude, high school diploma graduate, nonprior enlistees, a business cycle variable, and other control variables reflecting changes in enlistment policy, including the end of the GI Bill. It then uses the fitted models in conjunction with future scenarios to obtain forecasts of "high quality," nonprior service, male enlistments. 74 pp. Ref.

Craine, Roger

PD August 1, 1986. **TI** Risky Business: The Allocation of Capital. **AA** Department of Economics, University of California at Berkeley. **SR** University of California at Berkeley Department of Economics Working Paper: 8606; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. **PG** 27. **PR** \$3.50. **JE** 023, 313, 026. **KW** Risk. Diversification. Investment.

AB This paper examines the effect of risk on the firm's demand for capital and the equilibrium allocation of capital. Capital is an asset the firm uses to transfer sales between periods and an asset society uses to transfer consumption between periods. The firm diversifies risk through the mix of factor inputs, and an increase in price risk can make capital a more valuable asset to the firm, increasing the firm's investment demand. Society diversifies risk across production technologies. In a simple general equilibrium model I show that an increase in exogenous risk causes a reallocation of capital among technologies, but does not increase aggregate investment.

Crane, Keith

PD May 1986. **TI** The Soviet Economic Dilemma of Eastern Europe. **AA** The Rand Corporation. **SR** Rand Report: N-3368-AF; The Rand Corporation,

1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 70. PR No Charge. JE 052, 124, 114, 443, 452, 423. KW Soviet Union. Eastern Europe. Soviet Economic Policies.

AB This report examines probable changes in Soviet economic policies toward Eastern Europe during the next decade. It studies the issue of Soviet economic subsidies to Eastern Europe and explores several hypotheses that could explain why they have been granted. Finally, it discusses ways in which Soviet willingness to subsidize Eastern Europe will likely be affected by increased Soviet economic stringency, along with the possible repercussions of a decline in subsidies for East European economies. The study concludes that the Soviet Union will continue to use an awkward, expensive system of trade within the Council for Mutual Economic Assistance to buttress its important strategic, ideological, bureaucratic, and political stakes in the region. 70 pp. Bibliog.

TI The Costs and Benefits of the Soviet Empire, 1981-1983. **AU** Wolf, Charles Jr; Crane, Keith; Yeh, K. C.; Anderson, Susan; Brunner, Edmund; Edmund.

Cremer, Helmuth

PD October 1986. **TI** A Case for Differential Inheritance Taxation. **AU** Cremer, Helmuth; Pestieau, Pierre. **AA** Cremer: Universite de Leige. Pestieau: Centre for Operations Research and Econometrics, Universite Catholique de Louvain and Universite de Leige. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8633; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 21. PR No Charge. JE 323, 324, 921, 841. KW Inheritance Taxes. Bequests. Distribution of Wealth. Heirs. Collateral Bequests.

AB This paper incorporates the case of a variable number of children in a simple model of the distribution of inherited wealth. In particular, the possibility of childless couples, and hence of bequests from relatives other than parents (i.e., "collateral bequests") is considered. Within such a setting, two questions are raised. First, do collateral bequests increase the distributional inequality of wealth? Second, should one adopt inheritance tax rates that depend on the inheritor's blood relationship to the donor? In other words, does there exist an economic justification for differential inheritance taxation such as it is usual in many countries (e.g., France and Germany).

Cremer, Jacques

PD February 1987. **TI** On Governing Multilateral Transactions with Bilateral Contracts. **AU** Cremer, Jacques; Riordan, Michael H. **AA** Cremer: Virginia Polytechnic Institute, State University. Riordan: Stanford University, Hoover Institution. **SR** Stanford Hoover Institute Working Paper in Economics: E-87-9; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 51. PR No Charge. JE 026, 611, 511, 832. KW Contracts. Asymmetric Information. Multilateral Transactions. Customers. Suppliers. Public Goods. Risk Neutrality.

AB Bilateral contracts, while neither negotiated nor enforced in an integrated way, are nevertheless often

interrelated both economically and strategically due to production or consumption complementarities and to asymmetric information. A set of bilateral contracts forms a mechanism with special properties. This mechanism forms a contract equilibrium if there is no joint incentive for a supplier and any individual customer to unilaterally alter the terms of their contract. If agents' preferences are risk-neutral in money income, and if their private information is independent, then there exists a contract equilibrium that implements efficient transactions. If, in addition, preferences are strictly concave and differentiable in goods and services, and technologically feasible sets are suitably convex, then this equilibrium is essentially unique.

Cressie, Noel

TI The VPRT: A Sequential Testing Procedure Dominating the SPRT. **AU** Morgan, Peter B.; Cressie, Noel.

PD July 1986. **TI** Improving Upon the Neyman-Pearson Approach to Testing Hypotheses. **AU** Cressie, Noel; Morgan, Peter B. **AA** Cressie: Department of Statistics, Iowa State University. Morgan: Department of Economics, University of Western Ontario. **SR** University of Western Ontario Centre for Decision Sciences and Econometrics Technical Report: 13; The Centre for Decision Sciences and Econometrics, Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 17. PR No Charge. JE 211. KW Cost Function. Decision Theory. Power. Sequential Test. Size. Hypothesis Test.

AB In this paper we place the Neyman-Pearson testing procedure into a decision theoretic context, where collecting observations incurs a given cost, and making right/wrong decisions yield various given payoffs. We show that in general the Neyman-Pearson test generally does not maximize the expected payoff net of costs, and we give the procedure which does. Furthermore, we connect this optimality notion with that of maximizing power subject to bounding the size.

Danthine, Jean Pierre

PD September 1986. **TI** On the Superneutrality of Money in a Stochastic Dynamic Macroeconomic Model. **AU** Danthine, Jean Pierre; Donaldson, John B.; Smith, Lance. **AA** Danthine: Universite de Lausanne. Donaldson: Columbia University. Smith: Salomon Brothers. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-05; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 47. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 311, 023, 026, 111, 131. KW Superneutrality. Uncertainty. Money Growth. Tobin Effect. Optimizing Model.

AB This paper explores the robustness of the superneutrality of money result to the introduction of uncertainty. While qualitatively superneutrality fails to obtain in our model, quantitatively the observed Tobin effect is insignificant. The equilibrium time paths of real variables are nearly unaffected by changes in the money growth rate. We argue that our conclusions reinforce the

theoretical case for superneutrality.

Danzon, Patricia M.

PD 1986. TI New Evidence on the Frequency and Severity of Medical Malpractice Claims. AA The Rand Corporation. SR Rand Report: R-3410-ICJ; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 35. PR No Charge. JE 916, 913. KW Medical Malpractice. Tort Reforms. Claim Frequency. Court Suits.

AB This report updates an earlier analysis (R-2870-ICJ/HCF) of the effects of demographic, medical and legal factors on the frequency and severity of medical malpractice claims. Using claims data from 1975-1984, the author analyzes the effects of tort reform on malpractice claims after taking into account the effects of other variables that have previously been shown to correlate with claims frequency and severity. The evidence from the study suggests that the last round of tort reforms affected the frequency and severity of malpractice claims over the decade 1975-1984 in a way broadly consistent with theory and previous evidence. Claim frequency per physician has grown at roughly 10 percent a year and severity has increased at twice the consumer price inflation rate. Nevertheless, tort changes have had some effect. States that enacted shorter statutes of limitations and set outer limits on discovery rules have had less growth in claim frequency than would otherwise have been predicted. States with statutes permitting or mandating the offset of collateral benefits had 14 percent fewer claims, and 11 to 18 percent smaller payouts, than would otherwise have been predicted. States with caps on awards have reduced severity by 23 percent. Arbitration statutes appear to have increased claim frequency but reduced average severity. 35 pp.

d'Aspremont, Claude

PD 1986. TI Ordinal Bayesian Incentive Compatible Representations of Committees. AU d'Aspremont, Claude; Peleg, Bezalel. AA Peleg; Department of Mathematics, The Hebrew University. d'Aspremont: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8642; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 24. PR No Charge. JE 025, 026. KW Decision Schemes. Committees. Incentives. Weak Games. Strategic Voting. Condorcet's Paradox.

AB We consider the problem of strategic manipulation for decision schemes that provide "nice" representations of committees. "Strategy-proof representation" is very restrictive: it implies that the committee contains exactly one minimal winning coalition. So we introduce the weaker concept of "Ordinally Bayesian Incentive Compatible representation" and prove the existence of such representations for weak games under some conditions. Finally, constructing examples, we show first how necessary these conditions are - including the use of chance in the voting procedure - and second that we cannot avoid Condorcet's paradox.

PD September 1986. TI On Monopolistic Competition

and Involuntary Unemployment. AU d'Aspremont, Claude; Ferreira, Rodolphe Dos Santos; Gerard, Varet Louis Andre. AA d'Aspremont: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. Ferreira: BETA, Universite Louis Pasteur. Gerard-Varet: GREQE, Ecole des Hautes Etudes en Sciences Sociales. SR Universite Catholique de Louvain CORE Discussion Paper: 8635; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 38. PR No Charge. JE 021, 022, 026, 611, 821. KW General Equilibrium Model. Imperfect Competition. Involuntary Unemployment.

AB In a simple strategic general equilibrium model of imperfect competition in prices, assumptions are introduced to ensure both the existence of equilibrium and the determination of examples in which some involuntary unemployment (in a strong sense) arises.

Dastoor, Naorayex K.

PD January 1987. TI On Point-Optimal Cox Tests. AU Dastoor, Naorayex K.; Fisher, Gordon. AA Dastoor: University of Alberta. Fisher: Queen's University. SR Queen's Institute for Economic Research Discussion Paper: 678; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 18. PR \$3.00 Canada; \$3.50 United States and Foreign. JE 211. KW Normal Linear Regression. Covariance Structures. Point-Optimal Tests. Exact Cox Tests. Non-Nested Hypotheses.

AB This paper is concerned with the general problem of testing one form of covariance structure against another in a normal linear regression. It is shown that all the point-optimal tests recently proposed by King and his associates can be interpreted as special cases of a Cox test for non-nested hypotheses. This provides a synthesis of a whole range of point-optimal tests as well as demonstrating that King and his associates have exposed a class of Cox tests which have an exact distribution.

DaVanzo, Julie

PD May 1986. TI Infant Mortality Decline in Malaysia, 1946-1975: The Roles of Changes in Variables and Changes in the Structure of Relationships. AU DaVanzo, Julie; Habicht, Jean Pierre. AA The Rand Corporation. SR Rand Note: N-2491-WB/RF/FF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 18. PR No Charge. JE 913, 914, 121. KW Infant Mortality. Malaysia. Breastfeeding. Sanitation.

AB This Note is a reprint of an article that appeared in 'Demography, Volume 23, Number 2, May 1986, pages 143-160. It uses individual-level retrospective data from the Malaysian Family Life Survey to examine why the infant mortality rate (IMR) has declined rapidly in Malaysia since World War II. Substantial increases in mothers' education and improvements in water and sanitation have contributed. However, breastfeeding reductions have kept the IMR from declining as rapidly as it would have otherwise. The detrimental effects of reduced breastfeeding more than offset the beneficial effects of water and sanitation improvements. The majority of

the IMR decline, however, is not explained by changes in the variables considered in this Note, or in their relationships with infant mortality.

PD July 1986. **TI** Determinants of Contraceptive Method Choice in Peninsular Malaysia, 1961-1975. **AU** DaVanzo, Julie; Tan, Boon Ann; Othman, Ramli; Peterson, Jane R. **AA** The Rand Corporation. **SR** Rand Note: N-2453-PC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 57. **PR** No Charge. **JE** 913, 914, 841, 121. **KW** Contraception. Malaysia. Birth Control. **AB** This Note considers the influences on contraceptive use in Peninsular Malaysia over the period 1961-1975, when the contraceptive use rate increased dramatically. It indicates how influences differ among six contraceptive methods. The findings indicate that explanatory variables do not affect the likelihood of use of different contraceptive methods in the same way. Some factors are associated with increased use of certain methods and decreased use of others. Hence, consideration restricted only to the use or nonuse of contraception could mask important differing influences that may affect in turn the effectiveness of contraceptive practice.

TI Why Were Infant and Child Mortality Rates Highest in The Poorest States of Peninsular Malaysia, 1941-75? **AU** Peterson, Christine; Yusof, Khairuddin; DaVanzo, Julie; Habicht, Jean Pierre.

TI Why Were Infant and Child Mortality Rates Highest in The Poorest States of Peninsular Malaysia, 1941-75? **AU** Peterson, Christine; Yusof, Khairuddin; DaVanzo, Julie; Habicht, Jean Pierre.

David, Edmond

TI Economies of Superscale and Interstate Expansion. **AU** Shaffer, Sherrill; David, Edmond.

de Combrugge, Alain

PD January 1987. **TI** On Pareto Improving Tax Changes Under Fiscal Competition. **AU** de Combrugge, Alain; Tulkens, Henry. **AA** Tulkens: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. de Combrugge: Louvain-la-Neuve and London School of Economics. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8705; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 10. **PR** No Charge. **JE** 323, 324, 941. **KW** Tax Competition. Taxes. Commodity Tax. Non-Cooperative Fiscal Equilibrium. Competing Regions.

AB This note shows that when a "non cooperative fiscal equilibrium" of the Mints-Tulkens 1986 model of tax competition is inefficient, the direction of Pareto improving changes is always positive for the taxes of both regions. It also identifies the class of such equilibria that are efficient.

de Janvry, Alain

PD January 1987. **TI** The Conditions for Compatibility Between Aid and Trade in Agriculture. **AU** de Janvry, Alain; Sadoulet, Elisabeth. **AA** Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of

California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 430; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 37. **PR** \$7.40. **JE** 121, 422, 421, 621, 713. **KW** Technical Aid. Least Developed Countries. Agricultural Exports. Industrial Growth. Income Distribution. Agricultural Technology.

AB Similar to the pressures of organized labor on the legislature to increase industrial protectionism in the United States, there currently exists a strong opposition by farm lobbies to aid programs that spread modern agricultural technologies to least-developed countries (LDCs) in ways that compete with United States farm exports. The presumption is that there is a conflict between aid and trade. Political support for this view has been increased by the recent demise of United States agricultural exports and the disastrous consequences this has had on farm incomes. This short-run view does not take into account the fact that technological change in LDC agriculture can create strong economywide growth and income effects with the potential of increasing the level of agricultural imports in future years. Countries such as Korea, Malaysia, Taiwan, and Thailand have shown how successful agricultural development sustained broad-based industrial growth which, subsequently, increased the demand for imports of coarse grains and feedstuffs.

PD March 1987. **TI** Farm Structure, Productivity, and Poverty. **AA** Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 432; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 51. **PR** \$10.20. **JE** 121, 717, 825, 914. **KW** Farm Structure. Land Productivity. Poverty. Third World. Technical Change. Green Revolution. Land Reform. Family Farm.

AB The economic superiority of the family farm rests on labor market dualism and on existence of nontraded or imperfectly traded factors of production controlled by farm households. The total factor productivity superiority of the family farm will, consequently, tend to disappear when (1) surplus labor is eliminated, (2) labor market failures are erased which thus frees captive resources (e.g., female labor), (3) captive labor is no longer a productive resource (e.g., children who go to school instead of working on the farm), and (4) other factors controlled by the farm household can be traded, in particular managerial and labor supervision functions through the hiring of foremen or labor contractors. The total factor productivity effect of redistributive land reforms will thus be potentially more important when these conditions do not hold that is in poor, labor surplus, agrarian economies ridden with substantial market failures. Antitenancy land reforms are, however, likely to fail to achieve productivity gains in this context precisely because contractual arrangements tend to emerge in compensation for market failures. When a rapid flow of landsaving technological innovations occurs, access to technology and credit through rural development programs is essential to protect the productivity superiority of the family farm. This requires specific research efforts directed at its farming systems and removal of disadvantages in access to credit resulting from transaction costs, tenancy contracts with imperfect land

and credit markets, and exclusion from access to institutional rents. Preservation of farms smaller than family farms depends crucially upon access to nonfarm sources of income and, in particular, on the level of wage relative to the reservation wage of landless workers. Under surplus and captive labor conditions, even access to a small plot of good quality land can significantly alleviate rural poverty. While there are many situations where a redistributive land reform is unlikely to increase total factor productivity in agriculture, access to land remains the key determinant of rural income. Even when land reform thus loses its productivity rationale because the inverse relation between productivity and farm size has disappeared, it remains key for social welfare in the rural sector in the absence of intersectoral income transfers toward the rural poor.

PD April 13, 1987. **TI** A Study in Resistance to Institutional Change: the Lost Game of Latin American Land Reform. **AU** de Janvry, Alain; Sadoulet, Elisabeth. **AA** Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 429; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 31. **PR** \$6.20. **JE** 121, 717. **KW** Institutional Change. Latin America. Land Reform. Land Redistribution. Expropriation.

AB We conclude that redistributive land reforms failed to materialize in Latin America because the state sought first to modernize the medium and large farms as the most cost-effective approach to raising TFP. Successful modernization created economic power which reinforced the political power of landlords. They, in turn, were able to use this power to obtain credible promises of nonexpropriation and to successfully engage in rent seeking. This third distortion (credible promises or institutional rents) made redistributive state interventions to compensate, through institutional change, for the initial two market distortions (no land or credit market and moral hazards in hiring labor), impossible. The result is a heavy social cost in terms of foregone TFP level that could have been achieved by redistributive land reform and the perpetuation of an extremely unequal pattern of landownership. The policy implication is that land redistribution should have been sought outright, before modernization endowed the landlords with enough power over the state to make land reform economically impossible.

de Palma, Andre

TI A Representative Consumer Theory of the Logit Model. **AU** Anderson, Simon P.; de Palma, Andre; Thisse, Jacques Francois.

Deaves, Richard

PD September 1986. **TI** The Response of Interest Rates to the Federal Reserve's Weekly Money Announcements: The "Puzzle" of Anticipated Money. **AU** Deaves, Richard; Melino, Angelo; Pesando, James E. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8615; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 23. **PR** No Charge.

JE 311, 313, 023. **KW** Interest Rates. Announcement Effect. Federal Reserve Announcements. Expectations.

AB Researchers, using the survey conducted by Money Market Services, Incorporated, have found that the anticipated component in the Federal Reserve's weekly money supply announcement is negatively correlated with the post-announcement change in market yields. We prove that eliminating a (downward) bias in the measure of anticipated money can, in theory, eliminate this puzzle, but that improving the efficiency of an already unbiased measure cannot. We find, using Canadian as well as United States interest rate data, that correcting the downward bias in the survey measure reduces, but does not eliminate, the role of anticipated money.

Dehez, Pierre

PD January 1987. **TI** Distributive Production Sets and Equilibria with Increasing Returns. **AU** Dehez, Pierre; Dreze, Jacques. **AA** Dreze: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. Dehez: European University Institute. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8701; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 23. **PR** No Charge. **JE** 022, 021. **KW** Average Cost Pricing. Cost Functions. Aumann-Shapley Average Cost Prices. Increasing Returns to Scale.

AB We give a necessary and sufficient condition on production sets under which average cost pricing is compatible with voluntary trading. This condition defines a class of production sets which is related to supportable cost functions and to Aumann-Shapley average cost prices.

Demski, Joel S.

PD July 1986. **TI** Hierarchical Regulatory Control. **AU** Demski, Joel S.; Sappington, David E. M. **AA** Demski: Yale University. Sappington: Bell Communications Research, Incorporated. **SR** Bell Communications Research Incorporated Economics Discussion Paper: 15; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. **PG** 38. **PR** No Charge. **JE** 613, 026. **KW** Regulation. Information. Game. Principal-Agent.

AB This paper is concerned with the design of regulatory policy when the firm's information about its technology is initially better than the regulator's information. We depart from standard analyses by recognizing that the regulator is a real "player" in the regulatory "game", and will not act benevolently according to the interests of consumers. Thus, the regulator must be induced to perform his role by consumers, just as the firm must be motivated to act appropriately by the regulator. In the terminology of the principal-agent literature, we treat the regulator as an agent of consumers and as a principal to the firm. We find that the conclusions in the regulatory literature differ qualitatively when the regulator must be motivated to acquire valuable information about the firm's technology. In particular, we show that the optimal regulatory policy involves distortions in the activities of the firm in order to better control the actions of the regulator. Intuitively, the firm's performance provides a signal as to whether the regulator has done his job, and the

distortions are designed to make this signal even more informative.

PD September 1986. **TI** On the Timing of Information Release. **AU** Demski, Joel S.; Sappington, David E. M. **AA** Demski: Yale University. Sappington: Bell Communications Research, Incorporated. **SR** Bell Communications Research Incorporated Economics Discussion Paper: 18; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. **PG** 15. **PR** No Charge. **JE** 026, 025. **KW** Incentives. Moral Hazard. Planning Information.

AB We consider a simple incentive problem in which moral hazard concerns can make it attractive to delay the release of valuable planning information. The delay can provide better incentives for subsequent information acquisition. We also demonstrate that temporary manipulation of the content of the information released can be valuable.

Derigs, Ulrich

PD March 1985. **TI** An Efficient Labeling Technique for Solving Sparse Assignment Problems. **AU** Derigs, Ulrich; Metz, Achim. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: 85367-OR; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** No Charge. **JE** 213. **KW** Sparse Assignment Problems. Augmenting Path Approach.

AB We describe a new implementation of the shortest augmenting path approach for solving sparse assignment problems and report computational experience documenting its efficiency.

PD November 1985. **TI** Neuere Ansätze in der Linearen Programmierung. **AA** University of Bayreuth. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: 85402-OR; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. **PG** 12. **PR** No Charge. **JE** 213. **KW** Linear Programming. Algorithm.

Diebold, Francis X.

PD August 1986. **TI** Structural Change and the Combination of Forecasts. **AU** Diebold, Francis X.; Pauly, Peter. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Special Studies Discussion Paper: 201; C/O Francis X. Diebold, Mail Stop 180, Federal Reserve Board, Washington, DC 20551. **PG** 50. **PR** No Charge. **JE** 211, 132, 212. **KW** Prediction. Time-Varying Parameters. Pooling. TVC. Time Varying Coefficients.

AB We explore various time-varying coefficient models for use in the combination of forecasts, to account for differential effects of structural change. A number of deterministic and stochastic TVC models are proposed, in addition to weighted regression-based approaches. It is shown that all existing variance-covariance methods of accounting for structural change in forecast combination emerge as special cases of the weighted TVC approach.

PD November 1986. **TI** The Dynamics of Exchange Rate Volatility: A Multivariate Latent Factor ARCH

Model. **AU** Diebold, Francis X.; Nerlove, Marc L. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 205; Special Studies Section, C/O Frank Diebold, Federal Reserve Board, Mail Stop 180, Washington, DC 20551. **PG** 55. **PR** No Charge. **JE** 211, 212, 431. **KW** Efficiency. Heteroskedasticity. Time-Series. Kalman Filter. Exchange Rate. Volatility. ARCH. GARCH. MIMIC. Common Factors. State Space.

AB GARCH processes (Engle and Bollerslev, 1986) are proving to be a very useful class of heteroskedastic nonlinear time-series, particularly in economics. Successful multivariate GARCH modeling has proved elusive, however, due to the huge number of parameters which must be estimated. In this paper we develop a multiple-indicator, multiple-cause (MIMIC) model in which the common factor(s) (and possibly the unique factors) may display GARCH. The rich (and testable) conditional variance-covariance structure of the observed variables arises from their joint dependence on a common factor; this leads to commonality in temporal volatility movements across variables which is frequently observed in economics. In addition, the factor structure leads to a very parsimonious parameterization. The model is cast in statespace form, leading to convenient estimation via the Schweppe decomposition and Kalman filter. The power of the approach is illustrated through detailed study of a 7-variate high-frequency exchange rate system.

Djajic, Slobodan

PD October 1986. **TI** Goods, Services and Trade. **AU** Djajic, Slobodan; Kierzkowski, Henryk. **AA** Djajic: Columbia University, and Queen's University. Kierzkowski: Graduate Institute of International Studies, Geneva. **SR** Queen's Institute for Economic Research Discussion Paper: 680; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 25 pages. **PR** \$3.00 Canada and United States; \$3.50 Foreign. **JE** 411, 420, 442. **KW** Non-Durable Goods. Durable Goods. Maintenance Services. International Trade. Heckscher-Ohlin Model. Tradable Services.

AB The recent interest in establishing guidelines for trade in services calls for an analysis of a wide range of questions related to the role of services in open economies. This paper attempts to deal with some of the positive issues in the context of the Heckscher-Ohlin model of trade. The focus of analysis is on the class of services associated with the maintenance of durable goods. When an individual or a firm buys a durable, the product in question will require servicing over its lifetime. In most cases technology allows for various specifications in production and different models of the durable have different servicing requirements. Assuming that services are labor intensive, we show that the type of durable demanded in relatively labor-abundant countries tends to require relatively more servicing per unit of time. We then consider two economies which differ in terms of factor-endowment ratios and examine the implications of allowing them to trade under two of a number of possible trade regimes. In one case only commodities can be traded internationally; in the other, the firms exporting durable

goods are assumed to service the units sold abroad through their servicing outlets located in the importing country. In comparing the two trade regimes, we show that the volume and direction of trade are determined not only by the relative factor endowments of countries, but also by whether or not services are tradable.

PD October 1986. **TI** Dynamics of the Exchange Rate in Anticipation of Pegging. **AA** Columbia University and Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 679; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 26. **PR** \$3.00 Canada and United States; \$3.50 Foreign. **JE** 431, 432. **KW** Regime Switching. Speculative Attack. Exchange Rate. Pegging. Floating Exchange Rate.

AB This paper studies an economy in which agents expect the current floating-rate regime to be interrupted on a specific future date by a transitional fixed-rate policy. When the new peg is not revealed in advance, the path of the floating rate in anticipation of pegging is determined by the interaction between what agents perceive to be the objectives and the constraints of the central bank. In examining this path, the paper highlights the role of the pegging date, the duration of the fixed-rate interval, the quantity of reserves available to the authorities, and the nature of policies implemented after pegging is terminated.

PD November 1986. **TI** Current-Account Effects of a Temporary Change in Government Expenditure. **AA** Columbia University and Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 677; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 27. **PR** \$3.00 Canada and United States; \$3.50 Foreign. **JE** 431, 321. **KW** Government Spending. Current Account. Intertemporal Model. Perfect Foresight. Public Goods.

AB This paper employs a perfect-foresight model of intertemporal utility maximization in analysing the current-account effects of a temporary increase in government spending. The relationship between the marginal utility of private consumption and the supply of public goods in the economy is shown to play a crucial role in determining the qualitative nature of the optimal current-account response. The link between the timing of the policy change and the magnitude of the current-account effect is also examined.

PD December 23, 1986. **TI** Effects of Budgetary Policies in Open Economies: The Role of Intertemporal Consumption Substitution. **AA** Columbia University, Queen's University, and Institute for International Economic Studies, University of Stockholm. **SR** Queen's Institute for Economic Research Discussion Paper: 675; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 23. **PR** \$3.00 Canada and United States \$3.50 Foreign. **JE** 431, 433, 321, 411. **KW** Government Spending. Current Account. Interest Rate. Intertemporal Consumption Substitution. Budgetary Policies. Exchange Rate. Terms of Trade.

AB An economy's optimal response to temporary and anticipated future changes in government spending is examined in the context of a two-country model which highlights the role of intertemporal consumption

substitution (ICS). Special attention is devoted to the case in which the two countries coordinate their fiscal measures. The qualitative effects of such measures on an economy's current account, terms of trade (in a two-commodity world), and real exchange and interest rates (in a world with non-traded goods) are shown to depend on the relationship between the domestic and the foreign elasticities of ICS.

PD March 1987. **TI** Government Spending and the Optimal Rates of Consumption and Capital Accumulation. **AA** Columbia University, Ludwig-Maximilians-Universität and Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 681; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 17. **PR** \$3.00 Canada and United States; \$3.50 Foreign. **JE** 321, 322, 023. **KW** Investment. Saving. Government Expenditure.

AB This paper investigates the effects of a temporary change in government expenditure on private consumption and investment. The model employed is one of a closed economy populated by infinitely-lived, utility-maximizing individuals. The analysis focuses on the implications of alternative assumptions concerning the relationship between public and private consumption in the household's utility function. A temporary increase in government expenditure is found to reduce investment if public and private goods are Edgeworth complements or independent. However, if they are substitutes, there exists the possibility of an increase in investment.

Dobrinsky, Rumen

PD 1985. **TI** Aggregated Macroeconomic Models of the European CMEA Countries. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-25; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 31. **PR** No Charge. **JE** 132, 212, 111, 122, 124, 052. **KW** Economic Growth. Structural Change. Macroeconomic Models. Eastern Europe. World Model.

AB The Bonn-IIASA Research Project on Economic Growth and Structural Change considers 23 countries and country groups each of which is to be represented by a separate model. Seven of these countries are the European CMEA countries: Bulgaria, CSSR, GDR, Hungary, Poland, Romania and USSR. In accordance with the research plan of the project (1), the Central Group constructs aggregated macroeconomic models for the countries and country groups. These models will be used for building and testing the global model framework as well as for analysis and forecasts of the general trends of the national and global economic development. The aggregated country models may be substituted by more detailed national models provided by the collaborating Country Groups, which might allow for some more specific analysis concerning the development of the world economy. This research strategy determines to a large extent the objectives set by the Central Group with respect to the aggregated country models: to elaborate only the most important aspects of economic growth and structural change on national and international level and concentrate on the globally consistent patterns of economic development in a long-term perspective. Due to this the

research within the Central Group is focused on a limited number of macroeconomic indicators and on the analysis of stable and long-term interrelationships which exist among them. The basic framework of the aggregated country models is built in accordance with the principles of the neoclassical growth theory which provides a suitable theoretical background for constructing models of this type. Considerable attention is being paid to the concept of equilibrium growth, to the search of paths of equilibrium growth for the world economy and to the analysis of the factors which would provide the necessary conditions for the existence of such paths.

TI Economic Structural Change. The Bonn IIASA Research Project: Theoretical Background and Actual State. AU Krelle, W.; Dobrinsky, R.; Gajda, J.; Ross, H.; Sekely, I.; Welsch, H.

PD November 1986. **TI** The Macroeconomic Models of the European CMEA Countries. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-58; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 22. PR No Charge. JE 111, 122, 212, 124. KW Economic Growth. Structural Change. Specialist countries. World Model. Eastern Europe.

AB One part of the research within the Bonn-IIASA Project is devoted to the analysis and forecast of economic growth and structural change in the seven European CMEA countries: Bulgaria, CSSR, GDR, Hungary, Poland, Romania and USSR. The main tools for this research are the macroeconomic models of the countries which were constructed to serve the goals of the project. This paper reports on the models of the CMEA countries and outlines some specific methodological aspects of the approach to the modelling of the economies of these countries. The factual aspects of the analysis and forecast are presented in a separate paper (Dobrinsky, 1986 b). The models have been developed following the general lines of the Bonn-IIASA Project (Krelle, 1985). However, the approach to the CMEA country models differs in some important details which are due to the different behavior of economic agents in a socialist economy as compared to a market type economy. Another cause of difference is the different accounting system in the CMEA countries whose statistics are based on the System of Material Product Balances. This is the reason why some of the variables and indicators used in the CMEA country models are not directly comparable with those in the models of the market-type economies. The actual data base for the CMEA countries which was used in the project was compiled on the basis of valuable contributions from many collaborating groups. This data base is described in more detail in Dobrinsky (1986 a). The CMEA country models are dynamic, non-linear simulation models of the national economies which contain two main parts: domestic part and foreign trade part. The foreign trade part of the models is described in a separate paper (Gajda, Sztadynger, 1986) so here we concentrate mainly on the domestic part.

Dohner, Robert S.

TI A Simple Simulation Model of International Bank

Lending. AU Terrell, Henry S.; Dohner, Robert S.

Donaldson, David

TI Social Choice in Economic Environments with Dimensional Variation. AU Roemer, John E.; Donaldson, David.

Donaldson, John B.

PD September 1986. **TI** "On the Term Structure of Interest Rates". AU Donaldson, John B.; Johnsen, Thore; Mehra, Rajnish. AA Donaldson: Columbia University. Johnsen: Norwegian School of Economics and Business Administration. Mehra: University of California at Santa Barbara. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-04; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 41. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 311, 131, 111, 521, 023. KW Term Structure. Business Cycle. Interest Rates. Volatility. Stochastic Growth Model. Yield Curve.

AB This paper explores the term structure of interest rates in the context of the one good stochastic growth model. First, we examine the changing shape of the yield curve over this artificial economy's "business cycle." Second, we employ the model to study various implications of informational and allocative efficiency, properties which the artificial economy must possess. It is found, for example, that long term rates are less volatile than short term rates and that holding premia can be highly correlated over time. Lastly, we study the effects of shifts in the economy's underlying parameters on the yield curve.

TI On the Superneutrality of Money in a Stochastic Dynamic Macroeconomic Model. AU Danthine, Jean Pierre; Donaldson, John B.; Smith, Lance.

Dreze, Jacques

PD August 1986. **TI** Underemployment Equilibria: From Theory to Econometrics and Policy. AA Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8634; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. PG 29. PR No Charge. JE 021, 023, 212, 022. KW Underemployment. Unemployment. Disequilibrium. General Equilibrium Macroeconomics. Economic Policy.

AB General equilibrium is the limiting framework where each firm and each household appears as a separate entity. Recognising microeconomic heterogeneity is thus a definite step towards what I shall call "General Equilibrium Macroeconomics" - or GEM for short. The methodological theme of this address is that general equilibrium with rationing covers macroeconomics automatically, sparing us the need to develop two separate fields. Of course, macroeconomics had been a general equilibrium venture all along, and Keynes belongs right next to Walras as a founder of that approach. But Walrasian and Keynesian economics had for many years developed along parallel, disjoint paths - an unfortunate development, reflecting the segmentation of our profession, and making life difficult for

our students. Keynes was obviously right in attempting to develop a theoretical framework in which the undisputed fact of persistent unemployment could be fitted. It was up to microeconomists to extend their own models accordingly. It is surprising that it took them so long to do so. It is also surprising that, once that step was taken, in particular by Yves Younes (1975) and Jean-Pascal Benassy (1975), the integration with Keynesian macroeconomics came so easily, as illustrated by Tour or more systematically by Benassy's treatment in *The Economics of Market Disequilibrium* (1982). I hope to convince you that both general equilibrium and macroeconomics benefit from the integration.

TI Distributive Production Sets and Equilibria with Increasing Returns. **AU** Dehez, Pierre; Dreze, Jacques.

Dubin, Jeffrey A.

PD January 1987. **TI** Are we a Nation of Tax Cheaters? New Econometric Evidence on Tax Compliance. **AU** Dubin, Jeffrey A.; Graetz, Michael J.; Wilde, Louis L. **AA** Dubin and Wilde: Caltech. Graetz: Yale Law School. **SR** Caltech Social Science Working Paper: 626; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 7. **PR** No Charge. **JE** 323, 916, 212. **KW** Tax Evasion. Internal Revenue Service. Tax Compliance.

AB The theoretical basis for the economic approach to tax compliance has, at least until recently, been inadequate, and the limited empirical work based on it is seriously flawed. In this paper we briefly review both, as well as new theoretical and, especially, empirical work on the tax compliance problem. With respect to the latter we present preliminary results based on a state-level, time-series, cross-section data set drawn in part from the annual reports of the Commissioner of Internal Revenue.

PD March 1987. **TI** How Markets for Impure Public Goods Organize: The Case of Household Refuse Collection. **AU** Dubin, Jeffrey A.; Navarro, Peter. **AA** Dubin: California Institute of Technology. Navarro: University of San Diego. **SR** Caltech Social Science Working Paper: 633; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 29. **PR** No Charge. **JE** 611, 324, 211, 941, 931. **KW** Refuse Collection. Market Organization. Economies of Density. Ideology. Impure Public Goods. Interest Groups. Community Preference.

AB This paper examines how markets for impure public goods organize within the context of household refuse collection. We demonstrate that observed public choices of apparently inefficient forms of market organization embody rational behavior where both rent-seeking interest groups and community preferences influence policy choices. The assessment of the relative efficiency of these choices is placed in a dynamic framework where initial market organization choice is allowed to influence eventual cost. The joint estimation of organizational choice and the cost of refuse collection shows that significant economies of density do exist. Our approach permits the separation of economic and political factors and allows us to calculate the additional cost of collection associated with communities ideological preferences.

Dufour, Jean Marie

PD September 1986. **TI** Exact Tests and Confidence Sets in Linear Regressions with Autocorrelated Errors. **AA** Department de Sciences Economiques, Universite de Montreal. **SR** Universite Catholique de Louvain **CORE** Discussion Paper: 8637; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 29. **PR** No Charge. **JE** 211, 311. **KW** Autocorrelation. Serial Correlation. Confidence Intervals. Hypothesis Tests. Nuisance Parameter Problem. Money Demand.

AB This paper proposes a general method to build exact tests and confidence sets in linear regressions with first-order autoregressive Gaussian disturbances. Because of a nuisance parameter problem, we argue that generalized bounds tests and conservative confidence sets provide natural inference procedures in such a context. Given an exact confidence set of the autocorrelation coefficient, we describe how to obtain a similar simultaneous confidence set of the autocorrelation coefficient and any sub-vector of regression coefficients. Conservative confidence sets for the regression coefficients are then deduced by a projection method. For any hypothesis which specifies jointly the value of the autocorrelation coefficient and any set of linear restrictions on the regression coefficients, we get exact similar tests. For testing linear hypotheses about the regression coefficients only, we suggest bounds-type procedures. Exact confidence sets for the autocorrelation coefficient are built by "inverting" autocorrelation tests. The method is illustrated with a money demand equation.

Dybvig, Philip

PD March 1987. **TI** Inefficient Dynamic Portfolio Strategies or How to Throw Away a Million Dollars on Wall Street. **AA** Cowles Foundation for Research in Economics, Yale University. **SR** Yale Cowles Foundation Discussion Paper: 826; Cowles Foundation for Research in Economics, Yale University, Box 2125 Yale Station, New Haven, CT 06520. **PG** 31. **PR** No Charge. **JE** 313, 026, 213. **KW** Portfolio Management. Stop-Loss Strategy. Lock-In Strategy. Portfolio Insurance. Capital Markets.

AB Our numerical results show that the efficiency loss to inefficient strategies may in fact be very large, even given very realistic assumptions. The strategies we have considered, stop-loss, lock-in, random timer, and repeated portfolio insurance, are very similar to strategies used in practice. It is interesting to note that the efficiency loss is the same whether or not the strategy was "planned" in advance; in other words, a manager deciding to lock in the gains at the time a boundary is reached has the same terminal distribution of wealth as a manager who planned from the start to follow this strategy. Much work remains. In one direction, it would be nice to extend the analysis to include transaction costs explicitly. Short of that, we can add the transaction cost to the cost described here to get an overall measure of the cost of a given policy, and it would be useful to have a collection of examples of this sort to aid our understanding. Along other lines, it is possible to measure the efficiency loss of other strategies. For example, contingent immunization strategies are not optimal for the same sort of reasons we have identified

here.

PD March 1987. **TI** Distributional Analysis of Portfolio Choice. **AA** Cowles Foundation for Research in Economics, Yale University. **SR** Yale Cowles Foundation Discussion Paper: 827; Cowles Foundation for Research in Economics, Yale University, Box 2125 Yale Station, New Haven, CT 06520. **PG** 41. **PR** No Charge. **JE** 026, 313, 213. **KW** Portfolio Performance. L-Statistics. Distributional Analysis. Mean Variance Analysis. CAPM.

AB Starting from simple assumptions, we have developed a number of tools for analyzing portfolio performance and efficiency. Collectively, we can refer to the approach described here as the distributional approach to analyzing portfolio problems, or as the payoff distribution pricing theory. The research has two broad goals. First, payoff distribution pricing theory provides specific tools for measuring performance and testing for efficiency. Second, the theoretical tools are likely to be useful for future development of theoretical models. While distributional analysis has already been applied successfully in theoretical work (Dybvig and Spatt '1983 and Dybvig '1985), work remains on the empirical side. We can apply some the known properties of L-statistics directly to the estimators (see Shorack and Wellner '1986), but some econometric work is needed to consider the case when the distribution of state price and the distribution of return are both measured with error. Empirical work is needed to apply the measures and compare their performance to more traditional measures. Only after this work is done will it be possible to assess the empirical potential of the distributional approach.

Dynarski, Mark

PD April 1987. **TI** Unemployment Durations Over the Business Cycle. **AU** Dynarski, Mark; Sheffrin, Steven M. **AA** University of California at Davis. **SR** University of California at Davis Research Program in Applied Macro and Macro Policy: 42; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 32. **PR** No Charge. **JE** 130, 821, 824, 131, 132. **KW** Unemployment. Duration. Hazard Models. Panel Study. Income Dynamics. Dynamic Search Model.

AB This paper explores the relationship between unemployment durations and cyclical movements in unemployment using an "employment calendar" constructed from recent questions in the Panel Study of Income Dynamics. We consistently find that durations fall as unemployment increases even after accounting for and finding support for a number of possible explanatory factors. We argue that our results can be consistently explained with a dynamic search model.

Easterlin, Richard A.

PD March 1987. **TI** The New Age Structure of Poverty: Permanent or Transient? **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8710; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 24. **PR** No Charge. **JE** 914, 824, 826, 841, 918. **KW** Poverty. Children. Elderly. Aggregate Demand. Relative Labor Supply. Aged.

AB In the same period that the poverty rate of the elderly has improved most markedly -- chiefly because of improved social security programs -- the poverty rate of children has seriously worsened. This adverse shift in children's fortunes, part of a broader pattern of adverse changes of younger compared with older age groups, is chiefly due to the concurrence of two conditions since the late sixties -- a slackening in the growth of aggregate demand and a growth in the supply of younger relative to older adults -- that have caused a severe deterioration in the wage and unemployment rates of adults in family forming ages. However, the prospect is that the age structure of poverty that has recently emerged will be a passing phenomenon.

Eaton, B. Curtis

PD August 1986. **TI** A Theory of Market Structure with Sequential Entry. **AU** Eaton, B. Curtis; Ware, Roger. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8610; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 49. **PR** No Charge. **JE** 611, 026, 214. **KW** Industrial Organization. Sequential Market Entry. Nash Equilibrium. Entry Game.

AB The paper sets out a theory of market structure with sequential entry. The perfect Nash equilibrium to the entry game is characterized in several propositions. First, equilibria never involve excess capacity. Second, a sufficient statistic for entry of any firm is that its profits are positive when computed myopically, i.e. with no further entry. Third, the equilibrium number of firms is the smallest number that can deter entry. Fourth, aggregate output in equilibrium is no smaller than the limit output. Some explicit solutions to the model are computed using a computer algorithm, and comparative static properties examined.

Ebert, Udo

PD June 1986. **TI** On the Characterization of the Optimal Nonlinear Income Tax. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-65; Sonderforschungsbereich 303 an der Universitat Bonn, Adensuerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 37. **PR** No Charge. **JE** 321, 024, 323. **KW** Optimal Tax. Welfare Maximization. Income Tax. Taxation.

AB The analysis of this paper demonstrates a problem in developing an optimal nonlinear income tax. The crucial point is the way the individuals' reaction to the imposition of the tax is taken into account. It turns out that substituting the first-order conditions from utility maximization does not suffice to imply the implementability of the tax system. Also second-order conditions have to be taken into consideration. This leads to an extension of Mirrlees's model and a somewhat more complicated system of necessary conditions for an optimal tax. The obvious thing to do is to investigate the properties of an optimal nonlinear tax in the framework of the extended model. Ebert (1986) deals with this topic.

PD December 1986. **TI** Properties of the Optimal Nonlinear Income Tax. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 -

Discussion Paper: A-66; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 20. PR No Charge. JE 323, 321. KW Optimal Income Tax. Utility Maximisation.

AB An essential of an optimal (nonlinear) income tax is its implementability. Ebert (1986) presents an explicit example which proves that the income tax derived in the framework of Mirrlees' model (Mirrlees (1971, 1976)) cannot be implemented. An investigation reveals the reason for this phenomenon. Mirrlees adopts the first-order approach in his formal model; i.e., only the necessary, first-order conditions of the individual's utility maximisation are taken into account. Obviously this proceeding is not correct. It is not sufficient to describe the individuals' behaviour completely. If the model is extended by the inclusion of the second-order conditions the implementability of the optimal tax schedule can be guaranteed. The second-order conditions require that gross income is a nondecreasing function of ability n . This paper considers the extended model (Ebert (1986)) and investigates the properties of the optimal income tax schedule derived in this framework. In order to obtain results the necessary conditions of the solution to the planner's optimization problem are considered. Most of the properties which have been derived in the original model can be proved in the extended model, as well. Furthermore it can be shown that the marginal rate of tax is strictly positive for all incomes, but the lowest and highest income. Moreover we get some definite results if bunching of individuals arises. [Section 2 briefly describes the extended model and its solution. Section 3 presents the properties of an optimal tax and section 4 concludes.

Edwards, Sebastian

PD February 5, 1987. **TI** Tariffs, Terms of Trade, and the Real Exchange Rate in an Intertemporal Optimizing Model of the Current Account. **AA** University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 429; Department of Economics - University of California at Los Angeles, Los Angeles, CA 90024. **PG** 43. **PR** \$2.50. **JE** 411, 420, 431, 441. **KW** Exchange Rate. Tariffs. Trade Barriers. Current Account. Trade Balance. Overshooting.

AB In this paper a minimal general equilibrium intertemporal model, with optimizing consumers and producers, is developed to analyze the process of real exchange rate determination. The model is completely real, and considers a small open economy that produces and consumes three goods each period. The model is also used to analyze the way in which the current account responds to several shocks. The working of the model is illustrated for the case of two disturbances: the imposition of import tariffs, and external terms of trade shocks. In the case of import tariffs, a distinction is made between temporary, anticipated, and permanent changes. It is shown that, without imposing rigidities or adjustment costs, interesting paths for the equilibrium real exchange rate can be generated. In particular "overshooting" and movements in opposite directions in periods one and two can be observed. Precise conditions under which temporary import tariffs will improve the current account

are derived. Finally, several ways in which the model can be extended to take into account other issues such as changes in the fiscal deficit, and financial deregulation are discussed in detail.

PD February 11, 1987. **TI** The United States and Foreign Competition in Latin America. **AA** Department of Economics, University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 431; Department of Economics - University of California at Los Angeles, Los Angeles, CA 90024. **PG** 112. **PR** \$2.50. **JE** 420, 431, 440, 121. **KW** United States. Latin America. Trade Relations. Direct Investment. Debt Crisis. International Competition.

AB This paper analyzes the role of the United States in the development of Latin America's international trade relations, focusing on the behavior of trade flows between the United States and the Latin American nations in the last 15 years or so. The paper analyzes the possible path that these trade relations will take in the future. In doing this, special emphasis is placed on any possible changes in the directions of trade in Latin America, scrutinizing whether there has been or will possibly be, a significant increase in south-south trade, and if new trade partners such as Japan and the newly industrialized countries of Southeast Asia have displaced the more traditional Latin American trade partners (i.e., the United States). The paper also deals with issues related to direct investment in Latin America, comparing the importance of the United States and other nations. Finally, the role of international trade in the solution of the current Latin American debt crisis, and in the reassumption of sustained growth in the region is discussed. An important issue discussed in the paper relates to the future evolution of the current protectionist mood in the United States and much of the developed world.

PD February 12, 1987. **TI** Financial Deregulation and Segmented Capital Markets: The Case of Korea. **AA** Department of Economics, University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 432; Department of Economics - University of California at Los Angeles, Los Angeles, CA 90024. **PG** 24. **PR** \$2.50. **JE** 313, 121, 441, 311. **KW** Deregulation. Capital Markets. Korea. Interest Rates. Financial Markets. Investment.

AB This paper deals with the relation between the official and unorganized (or curb) financial markets in Korea. The paper focuses on the behavior of officially controlled interest rates and freely determined market interest rates, and analyzes the effects of financial deregulation on interest rates, investment and growth in a segmented capital market. The empirical results show that changes in the officially controlled time deposit rate have been positively related to changes in the freely determined curb market interest rate. An aggregate investment function is also estimated for Korea. It is found that an increase (decrease) in the curb rate discourages (encourages) investment; on the other hand, increases in the real volume of credit intermediated in the official segment have a positive effect on real aggregate investment.

PD February 17, 1987. **TI** Economic Liberalization and the Equilibrium Real Exchange Rate in Developing Countries. **AA** Department of Economics, University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 433; Department of Economics, University of California at Los Angeles, Los Angeles, CA 90024. **PG** 44. **PR** \$2.50. **JE** 400, 431, 121, 421, 422, 441. **KW** Liberalization. Exchange Rate. Developing Countries. **LDC**. Commercial Policy. Tariffs. Capital Mobility. Trade.

AB This paper deals with the relation between commercial policy and "the" equilibrium real exchange rate. The paper clarifies the meaning of real exchange rate by comparing five different definitions that are currently found in the literature. The analysis focuses on the effects of an economic liberalization program that reduces import tariffs on the equilibrium real exchange rate under a number of alternative assumptions regarding capital mobility. From a policy perspective this is an important issue, since countries that embark on liberalization are usually concerned with avoiding real exchange rate misalignment and overvaluation. The effects of terms of trade shocks on the equilibrium real exchange rate are also investigated.

PD March 1987. **TI** Economic Liberalization and the Equilibrium Real Exchange Rate in Developing Countries. **AA** Department of Economics, University of California at Los Angeles. **SR** National Bureau of Economic Research Working Paper: 2179; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 422, 421, 431, 121. **KW** Exchange Rate. **LDC**. Developing Countries. Commercial Policy. Tariff. Capital Mobility. Trade Shocks.

AB This paper deals with the relation between commercial policy and "the" equilibrium real exchange rate. The paper clarifies the meaning of real exchange rate by comparing five different definitions that are currently found in the literature. The analysis focuses on the effects of an economic liberalization program that reduces import tariffs on the equilibrium real exchange rate under a number of alternative assumptions regarding capital mobility. From a policy perspective this is an important issue, since countries that embark on liberalization are usually concerned with avoiding real exchange rate misalignment and overvaluation. The effects of terms of trade shocks on the equilibrium real exchange rate are also investigated.

PD March 1987. **TI** Tariffs, Terms of Trade, and the Real Exchange Rate in an Intertemporal Optimizing Model of the Current Account. **AA** Department of Economics, University of California at Los Angeles. **SR** National Bureau of Economic Research Working Paper: 2175; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 431, 421, 422, 023. **KW** Terms of Trade. Exchange Rate. Intertemporal Model. Current Account. Tariffs. Overshooting.

AB In this paper a minimal general equilibrium intertemporal model, with optimizing consumers and producers, is developed to analyze the process of real exchange rate determination. The model is completely

real, and considers a small open economy that produces and consumes three goods each period. The model is also used to analyze the way in which the current account responds to several shocks. The working of the model is illustrated for the case of two disturbances: the imposition of import tariffs, and external terms of trade shocks. In the case of import tariffs, a distinction is made between temporary, anticipated, and permanent changes. It is shown that, without imposing rigidities or adjustment costs, interesting paths for the equilibrium real exchange rate can be generated. In particular "overshooting" and movements in opposite directions in periods one and two can be observed. Precise conditions under which temporary import tariffs will improve the current account are derived. Finally, several ways in which the model can be extended to take into account other issues such as changes in the fiscal deficit, and financial deregulation are discussed in detail.

PD March 9, 1987. **TI** Anticipated Protectionist Policies, Real Exchange Rates and the Current Account. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 437; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. **PG** 27. **PR** \$2.50 (checks payable to University of California Regents). **JE** 421, 422, 431, 411, 023. **KW** Protectionist Policies. Exchange Rates. Current Account. Intertemporal Model. Tariffs. Overshooting.

AB In this paper a general equilibrium intertemporal model, with optimizing consumers and producers, is developed to analyze how the anticipation of future import of tariffs affects 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 an anticipated future import tariff will worsen the current account in period 1 are derived. Several ways in which the model can be extended are also discussed in detail. The results obtained from this model have important implications for the analysis of real exchange rate misalignment and overvaluation.

Ehrenberg, Ronald G.

PD February 1987. **TI** Compensation and Firm Performance. **AU** Ehrenberg, Ronald G.; Milkovich, George T. **AA** NYSSILR, Cornell University. **SR** National Bureau of Economic Research Working Paper: 2145; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 510, 611. **KW** Compensation Policy. Firm Performance.

AB The relationship between the compensation policies a firm pursues and the firm's economic performance is of central importance to both researchers and practitioners. Yet, while a variety of theories exist about the effects of various compensation policies, surprisingly little evidence exists on the extent to which compensation policies vary across firms and, more importantly, on the effects of

pursuing alternative compensation strategies. This paper attempts to summarize the available evidence, drawing on research from the economics, finance, and personnel literatures. It also lays out an agenda for future research.

Eichberger, Jurgen

PD October 1986. TI Price and Quantity Controls as Facilitating Devices. AU Eichberger, Jurgen; Harper, Ian R. AA Australian National University. SR Australian National University Working Paper in Economics and Econometrics: 137; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. PG 9. PR No Charge. JE 611, 612. KW Duopoly. Price Floor. Output Quota. Sales Tax. Regulation.

AB This letter examines three cases in which a regulation imposed on one of two duopolists can increase the profit levels of both firms. The regulations examined include a price floor, an output quota and a sales tax.

Eichenbaum, Martin

PD March 1987. TI Estimating Models with Intertemporal Substitution Using Aggregate Time Series Data. AU Eichenbaum, Martin; Hansen, Lars Peter. AA Eichenbaum: Graduate School of Industrial Administration, Carnegie-Mellon University. Hansen: Department of Economics, University of Chicago. SR National Bureau of Economic Research Working Paper: 2181; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 023, 022, 921, 212. KW Permanent Income. Consumption. Intertemporal Asset Pricing Model. Durable Goods. Nondurable Goods.

AB In conducting empirical investigations of the permanent income model of consumption and the consumption-based intertemporal asset pricing model, various authors have imposed restrictions on the nature of the substitutability of consumption across goods and over time. In this paper we suggest a method for testing some of these restrictions and present empirical results using this approach. Our empirical analyses focuses on three questions: (i) Can the services from durable and nondurable goods be treated as perfect substitutes? (ii) Are preferences completely separable between durable and nondurable goods? (iii) What is the nature of intertemporal substitutability of nondurable consumption? When consumers' preferences are assumed to be quadratic, there is very little evidence against the hypothesis that the services from durable goods and nondurable goods are perfect substitutes. These results call into question the practice of testing quadratic models of aggregate consumption using data on nondurables and services only. When we consider S branch specifications, we find more evidence against perfect substitutability between service flows, but less evidence against strict separability across durable and nondurable consumption goods. Among other things, these findings suggest that the empirical shortcomings of the intertemporal asset pricing model cannot be attributed to the neglect of durable goods.

Eichengreen, Barry

PD September 1986. TI The Anatomy of Financial Crises. AU Eichengreen, Barry; Portes, Richard.

AA Department of Economics, Harvard University, United States of America Director, Centre for Economic Policy Research, 6 Duke of York Street, London. SR Centre for Economic Policy Research Discussion Paper: 130; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 041, 131, 430, 313, 441. KW Financial Crisis. Debt. International Instability. Depression. Capital Markets.

AB A financial crisis is a disturbance to financial markets, associated typically with falling asset prices and insolvency among debtors and intermediaries, which spreads through the financial system, disrupting the market's capacity to allocate capital. In this paper we analyze the generation and propagation of financial crises in an international setting. We provide a perspective on the danger of a serious disruption to the global financial system by comparing the last full-fledged financial crisis - that of the 1930s - with conditions prevailing today. Our definition of a financial crisis implies a distinction between generalized financial crises on the one hand and isolated bank failures, debt defaults and foreign-exchange market disturbances on the other. We represent this distinction in three sets of linkages: between debt defaults and bank failures; between exchange-market disturbances and debt defaults; and between exchange-market disturbances and bank failures. In both the 1930s and 1980s, the institutional environment was drastically altered by rapid change in foreign exchange markets, in international capital markets, and in the structure of domestic banking systems. Our comparative analysis underscores the critical role played by institutional arrangements in financial markets as a determinant of the system's vulnerability to destabilizing shocks.

PD September 1986. TI The Economic Consequences of the Franc Poincare. AU Eichengreen, Barry; Wyplosz, Charles. AA Department of Economics, Harvard University, United States of America Institut European d'Administration des Affaires, France. SR Centre for Economic Policy Research Discussion Paper: 136; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 044, 311, 431, 023, 321, 131. KW Monetary Policy. Fiscal Policy. Undervaluation. Franc. Investment Boom. Exchange Rate. Great Depression.

AB Following the fiscal stabilisation of 1926 and the accompanying return of the French franc to the Gold Standard, France enjoyed several years of fast growth and remained immune to the effects of the Great Depression until early 1931. Accounts of this period emphasize the undervaluation of the Franc Poincare of 1926 and the attendant export-led recovery. The undervaluation of the franc, in turn, is largely related to monetary policy. We show that exports cannot account for the delayed onslaught of the Great Depression and identify investment as the proximate driving force. We also claim that fiscal policy played a major role explaining simultaneously the undervaluation of the franc and the investment boom. The paper presents a dynamic model of fiscal policy as well as supporting empirical evidence.

PD March 1987. **TI** The Gold-Exchange Standard and the Great Depression. **AA** University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 2198; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 041, 430, 421, 422, 441, 131, 023. **KW** Gold Standard. Great Depression. International Monetary System. Monetary Policies. Competitive Devaluations. Foreign Exchange Reserves.

AB A number of explanations for the severity of the Great Depression focus on the malfunctioning of the international monetary system. One such explanation emphasizes the deflationary monetary consequences of the liquidation of foreign-exchange reserves following competitive devaluations by Great Britain and her trading partners. Another emphasizes instead the international monetary policies of the Federal Reserve and the Bank of France. This paper analyzes both the exceptional behavior of the United States and France and the shift out of foreign exchange after 1930. While both Franco-American gold policies and systemic weaknesses of the international monetary system emerge as important factors in explaining the international distribution of reserves, the first of these factors turns out to play the more important role in the monetary stringency associated with the Great Depression.

PD March 1987. **TI** Hegemonic Stability Theories of the International Monetary System. **AA** Department of Economics, University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 2193; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 432, 431, 420, 441, 442, 311. **KW** Hegemony. International Monetary order. Bretton Woods System. Monetary Stability.

AB Specialists in international relations have argued that international regimes operate smoothly and exhibit stability only when dominated by a single, exceptionally powerful national economy. In particular, this "theory of hegemonic stability" has been applied to the international monetary system. The maintenance of the Bretton Woods System for a quarter century through 1971 is ascribed to the singular power of the United States in the postwar world, while the persistence of the classical gold standard is similarly ascribed to Britain's dominance of the 19th-century international economy. In contrast, the instability of the interwar gold-exchange standard is attributed to the absence of a hegemonic power. This paper assesses the applicability of hegemonic stability theory to international monetary relations, approaching the question from both theoretical and empirical vantage points. While that theory is of some help for understanding the relatively smooth operation of the classical gold standard and early Bretton Woods System as well as some of the difficulties of the interwar years, much of the evidence proves to be difficult to reconcile with the hegemonic stability view.

PD March 1987. **TI** International Competition in the Products of U.S. Basic Industries. **AA** Department of Economics, University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 2190; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 133, 431, 122, 442, 421, 422, 411. **KW** United States. Basic Industries. National Production.

Product Cycle. Labor Management Relations. International Competition.

AB This paper provides an overview of recent trends in the United States basic industries. It first documents the dramatic fall in their shares of domestic employment and global production. It then considers explanations for these industries' relative -- and, in some instances, absolute -- decline. Those explanations fall into two categories: domestic explanations which focus on the decisions of labor, management and government, and international explanations which focus on the tendency of the product cycle to continually shift the production of established products and standardized processes to newly-industrializing countries. This review suggests that the recent difficulties of the United States basic industries have resulted not from one or the other of these factors but from their interplay. Insofar as product-cycle-based shifts in the international pattern of comparative advantage have contributed to recent difficulties, some decline in the United States basic industries is both inevitable -- barring increased protection -- and justifiable on efficiency grounds. Insofar as labor, management and government decisions share responsibility, the recent difficulties of United States basic industries may be at least partially reversible.

Engineer, Merwan

PD November 1, 1986. **TI** Taxes, Public Goods and the Ruling Class: An Explanation of the Territory Between Brennan and Buchanan's Leviathan and Conventional Public Finance. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 672; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 42. **PR** \$2.50 Canada; \$3.00 United States; \$3.50 foreign (as of January 1/87 - \$3.00 Canada; \$3.50 elsewhere). **JE** 320, 025, 024. **KW** Leviathan. Optimal Taxation. Ruling Class. Taxes. Public Goods.

AB Alternative theories of government behaviour yield conflicting prescriptions for public finance, ranging from Samuelson's (1954) well-known rule for the provision of the public good to Brennan and Buchanan's (1977), "Tax Constitution for Leviathan". This paper presents a general model that subsumes these rules as polar cases. A subset of the population, called the ruling class, is modelled as maximizing its own welfare exclusively in the choice of public goods, nonnegative lump sum payments and excise tax rates, subject to a given excise tax base and to private sector behaviour. At one pole, where everybody is a member of the ruling class, it is the public interest for the rulers to use a comprehensive and efficient excise tax base. At the opposite pole, where there is only one ruler, the subjects' interests are best defended by means of a restricted and inefficient tax base which enables subjects to substitute away from goods that are heavily taxed. In between, the optimal number of goods in the tax base varies with the size of the ruling class, but the relation is less straight forward than one might suppose.

Epstein, Larry G.

TI The Rationality of Accepting Compounds of Unattractive Gambles. **AU** Chew, Soo Hong; Epstein, Larry G.

TI Non-Expected Utility Preferences in a Temporal

Framework With an Application to Consumption-Savings Behaviour. AU Chew, Soo Hong; Epstein, Larry G.

TI The Structure of Preferences and Attitudes Towards the Timing of the Resolution of Uncertainty. AU Chew, S. H.; Epstein, L. G.

Ermisch, John

PD December 1986. TI The Economics of the Family: Applications to Divorce and Remarriage. SR Centre for Economic Policy Research Discussion Paper: 140; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 812, 840, 851, 921, 914. KW Marriage. Divorce. Remarriage. Childbearing. Women's Work Experience. One-Parent Families. Family.

AB The economic theory of marriage developed by Gary Becker is used to guide the estimation and interpretation of socioeconomic influences on the probabilities of marital dissolution at particular durations of marriage and the probability of remarriage within three years of dissolution. The analysis is based on the demographic and work histories in the 1980 Women and Employment Survey. The evidence presented here suggests that the likelihood of marital breakdown varies with the age at marriage and the timing of childbearing: this is consistent with previous research. This study is, however, the first in Britain to investigate the impact of women's work experience on the probabilities of marital dissolution and subsequent remarriage. Work experience is an important influence on women's earning capacity: the analysis indicates that in general, more work experience tends to increase the risk of marital dissolution, but it is also associated with quicker remarriage. The implications of the analysis for the economic circumstances of one-parent families are also discussed.

Faig, Miquel

PD June 1986. TI Optimality of the Non-Taxation of Money. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8607; Department of Economics, University of Toronto, Toronto, Ontario, CANADA, M5S 1A1. PG 35. PR No Charge. JE 311, 321, 323. KW Optimal Money. Taxation. Inflation. Tax.

AB A new approach to the conditions needed for the optimality of a zero tax on money is developed. The analysis is set in a second best framework where the government can only use distorting taxes to finance its expenditures. It is shown that when money functions as a medium of exchange, the conditions for a zero tax on money are fairly general. However, they are more stringent than the conditions for the optimality of the non-taxation of intermediate goods, because households are constrained at least up to a certain point to perform their own exchange activity.

PD June 1986. TI Optimal Taxation of Money Balances. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8608; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 37. PR No Charge. JE 311, 321, 323. KW Optimal

Money. Taxation. Inflation. Tax.

AB A new approach to the optimal taxation of money balances in a second best world is developed. In this world, the government can only use distorting taxes to finance its expenditures. It is shown that when money is introduced as a medium of exchange, taxes on money are welfare dominated by taxes on commodities under fairly general conditions. Nevertheless, these conditions are more stringent than the ones needed for the general rule not to tax intermediate goods, because households are constrained at least up to a certain point to perform their own exchange activity.

Fair, Ray C.

TI Inference in Econometric Models with Structural Change. AU Andrews, Donald W. K.; Fair, Ray C.

PD April 1987. TI The Effect of Economic Events on Votes for President: 1984 Update. AA Yale University. SR Yale Cowles Foundation Discussion Paper: 831; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 14. PR No Charge. JE 025, 212, 921, 131. KW Presidential Election. Votes. Inflation. Gross National Product Growth. Unemployment. Politics. Political Business Cycle. President.

AB In previous work I have developed an equation explaining votes for president in the United States that seems to have a remarkable predictive ability. The purpose of this paper is to update this equation through the 1984 election and then use it to predict the 1988 election.

Farrell, Joseph

PD September 1986. TI Meaning and Credibility in Cheap-Talk Games. AA Department of Economics, University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8609; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 16. PR \$3.50. JE 026. KW Communication. Signaling. Refinement of Equilibrium. Language. Cheap-Talk. Game Theory. Lies.

AB In modeling verbal communication, it is natural to think of "messages" as not directly affecting payoffs: talk is cheap. Unfortunately, the standard restrictions on out-of-equilibrium beliefs scarcely if at all restrict beliefs in a model of cheap talk. This leaves us with an embarrassing plethora of equilibria. If, instead of asking about equilibria in the game in isolation, we recognise the possibility that players share a rich natural language, then even messages not used in this equilibrium (neologisms) may have a focal meaning: their literal meaning. Although honesty may not always be the best policy, it is a focal policy, and we suppose that if there is no incentive to be dishonest, assuming that one's listeners assume one to be honest, then one will be honest: that is, speak the literal truth. This assumption links literal meaning to reality if it happens that there are no incentives to lie. In some cases, this restricts out-of-equilibrium beliefs, and hence restricts the set of equilibria. This refinement is the purpose of the paper. There are three objections to this argument, which, we discuss. First, every equilibrium outcome can be generated in an equilibrium in which all

messages are used with positive probability; hence, arguments about out-of-equilibrium beliefs would seem to lack force. Second, how do neologisms have meaning? Third, why should a disequilibrium message be believed? We argue that, while these objections have some force, they do not completely meet the case. We give examples showing what our proposed restriction on beliefs accomplishes, and note that there may be no equilibrium satisfying our restrictions. We discuss a dynamic evolutionary interpretation in which the absence of equilibrium means that the process never settles down.

PD September 26, 1986. **TI** Competition, Compatibility and Standards: The Economics of Horses, Penguins and Lemmings. **AU** Farrell, Joseph; Solaner, Garth. **AA** Department of Economics, University of California at Berkeley. **SR** University of California at Berkeley Department of Economics Working Paper: 8610; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. **PG** 27. **PR** \$3.50. **JE** 610, 620. **KW** Compatibility. Standards. Standardisation. Innovation.

AB We survey the existing economic literature and some promising future avenues of research in the theory of compatibility standards and standardisations.

PD November 1986. **TI** Communication Between Potential Entrants. **AA** GTE Laboratories and University of California at Berkeley. **SR** University of California at Berkeley Department of Economics Working Paper: 8615; IBER, 156 Barrows Hall University of California at Berkeley, Berkeley, 94720. **PG** 11. **PR** \$3.50. **JE** 611, 026. **KW** Entry. Communication. Natural Monopoly. Coordination. Nomination.

AB We analyze the symmetric equilibrium of a game of announcements between two potential entrants, only one of whom can profitably enter. The ability to communicate (in a costless, non-verifiable, non-binding way) makes coordination failures (both enter or neither does) less likely than in the symmetric equilibrium of the entry game without communication. Even in the limit as there are very many rounds of communication, however, the probability of coordination failures does not go to zero. Equilibrium in early rounds involves both firms almost certainly announcing that they will enter; later, one is more likely to "drop out."

Ferreira, Rodolphe Dos Santos

TI On Monopolistic Competition and Involuntary Unemployment. **AU** dAspremont, Claude; Ferreira, Rodolphe Dos Santos; Gerard, Varet Louis Andre.

TI On Monopolistic Competition and Involuntary Unemployment. **AU** dAspremont, Claude; Ferreira, Rodolphe Dos Santos; Gerard, Varet Louis Andre.

Fischer, Stanley

PD May 1987. **TI** International Macroeconomic Policy Coordination. **AA** Department of Economics, MIT. **SR** National Bureau of Economic Research Working Paper: 2244; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 420, 430, 023. **KW** Fiscal Policy. Trade Policy Coordination. European Monetary System. Monetary Policy.

AB Increasing integration of the world economy, in both trade and capital markets, holds out the promise of mutual gains to countries from the coordination of their macroeconomic policy decisions. In this paper I describe the theoretical case for coordination, evaluate empirical estimates of the potential gains, review the history of macroeconomic policy coordination, and discuss the prospects for increased coordination. The theoretical argument is seen most clearly in the consideration of fiscal expansion. Any one country that expands will create a current account deficit; all countries expanding together avoid that problem. In principle coordination is always better, but empirical estimates suggest the likely gains are small because the effects of policy in one country on the economies of other countries are small. Further, uncertainties about the effects of policy, reflected in differences among econometric models, mean that countries may have very different views on the likely outcomes of agreements -- and therefore that some of them are bound to be disappointed. Information exchanges and some coordination on trade policy take place in a large number of international organizations and frameworks. But the breakdown of the Bretton Woods system suggests that international differences in policy goals are too large for systematic macroeconomic policy coordination among the major economies to take place anytime soon. Occasional agreements on particular policy packages are possible, and coordination does take place in the framework of the European Monetary System.

Fisher, Eric

PD February 1987. **TI** A Model of Exchange Rate Pass-Through. **AA** International Finance Division, Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 302; International Finance Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 35. **PR** No Charge. **JE** 431, 134, 611. **KW** Exchange Rates. Inflation. Import Prices. Trade.

AB Exchange rate pass-through is the phenomenon whereby changes in the value of foreign exchange are reflected in changes in import prices. This paper presents a model in which firms are price setters who anticipate exchange rate changes. In equilibrium, firms' strategies incorporate expectations about the exchange rate consistently and are best responses to the strategies of all others in the world market. It is shown that exchange rate changes give rise to import price changes, but the degree of exchange rate pass-through depends upon domestic and foreign market structures and the exchange rate regime. In general, exchange rate pass-through is higher if the home market is monopolistic or if the foreign market is competitive. The paper concludes with an examination of disaggregated Japanese manufacturing price indices, and it shows that the degree of exchange rate pass-through was indeed correlated with industry concentration during the most recent period of the yen's depreciation against the dollar.

Fisher, Gordon

TI On Point-Optimal Cox Tests. **AU** Dastoor, Naorayex K.; Fisher, Gordon.

TI Taxation and the Firm's Leverage Decision: A Survey of Theoretical Issues. AU Bartholdy, Jan; Fisher, Gordon; Mints, Jack.

Fisher, Timothy

TI Testing for the Existence of Input Aggregates in an Economy Production Function. AU Blackorby, Charles; Schworm, William; Fisher, Timothy.

Florens, J. P.

PD 1987. TI Non-Causality and Marginal Markov Processes. AU Florens, J. P.; Mouchart, M.; Rolin, J. M. AA Florens: GREMAQ, Universite des Sciences. Mouchart and Rolin: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8706; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 19. PR No Charge. JE 211, 213. KW Causality. Measurable Separability. Strong Identification.

AB A subprocess of a Markov Process is markovian if a condition of non-causality is satisfied. A markovian condition is a natural condition to analyse the role of the horizon (finite or infinite) in the property of non-causality. We also show that under suitable technical conditions a process is both jointly and marginally markovian only if there is both finite and infinite non-causality and a process verifies both finite and infinite non-causality only if it is markovian. Counter-examples are also given for the cases where some technical conditions are not satisfied.

Foot, David K.

TI Lawyer's Earnings Under Market Differentiation and Rapid Supply Expansion, 1970-1980. AU Stager, David A. A.; Foot, David K.

Forges, Françoise

PD October 1986. TI Negotiation Without a Deadline: A Job Market Example. AA Charge de Recherches au Fonds National de la Recherche Scientifique. SR Universite Catholique de Louvain CORE Discussion Paper: 8639; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 23. PR No Charge. JE 026, 821. KW Job Candidate. Employers. Information. Communication. Hiring. One-Shot Game. Employment Negotiation.

AB We consider the negotiation between an informed individual and an uninformed one, who has the decision power. For instance, a candidate (who knows his ability) and an employer (who decides to hire or not and which job to give). A full description of the Nash equilibrium outcomes is given. There exist efficient Nash equilibria which can only be achieved by means of an unbounded conversation (i.e. a finite conversation whose length cannot be determined in advance). The set of communication equilibrium outcomes, which coincides here with the set of correlated equilibrium outcomes, is also fully described.

PD 1987. TI Universal Mechanisms. AA Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8704; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 26. PR No Charge. JE 026. KW Non-Cooperative Games. Communication. Incomplete Information. Revelation Mechanisms.

AB All solutions of a non-cooperative n -person ($n \geq 3$) game with incomplete information that become feasible once arbitrary devices of communication are available to the players (like direct revelation mechanisms set up by a mediator) can be achieved by means of a mechanism universal in two respects: it does not depend on the specification of the game nor on the solution to achieve and it is easily implemented in any institutional context.

Foster, N.

PD November 1986. TI Public and Private Sector Pay: Some Further Results. AU Foster, N.; Henry, S. G. B.; Trinder, C. AA Foster: Birkbeck College. Henry and Trinder: National Institute of Economic and Social Research. SR London School of Economics Centre for Labour Economics Discussion Paper: 267; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 21. PR No Charge. JE 824, 212, 132. KW Intersectoral Pay. Earnings Growth. Earnings Level.

AB This paper extends an earlier one dealing with the determinants of earnings movements disaggregated into four sectors. The sectors used are manufacturing, private non-manufacturing, general government and public corporations. Earnings equations are estimated for each, paying special attention to the possibility that settlements in one sector can exert an influence upon settlements in others. The finding in our earlier study, that public corporations appear to lead other sectors, is confirmed here. The present paper also provides a dynamic analysis of the four earnings equations, by embedding them in the full National Institute macroeconomic model, and computing some of their simulation properties.

Frankel, Jeffrey A.

PD February 1, 1986. TI The Desirability of a Currency Depreciation, Given a Contractionary Monetary Policy and Concave Supply Relationships. AA Department of Economics, University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8601; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 26. PR \$3.50. JE 431, 311, 023. KW Monetary Contraction. Currency Appreciation. Exchange Rates. Inflation. Monetary Policy.

AB The paper offers an argument why, given a monetary contraction, a currency appreciation is desirable in that it allows a more favorable tradeoff between aggregate output and inflation. Assume in each of two sectors, traded and nontraded, a concave supply relationship. It follows that to maximize aggregate output for any given inflation rate, contraction or expansion should be shared equally by the

two sectors. If a country contracts without currency appreciation, the burden in the domestic country will be borne disproportionately by the nontraded sector, and in the foreign country by the traded sector. Some appreciation is desirable for a balanced economy.

PD June 1, 1986. TI Explaining the Demand for Dollars: International Rates of Return and the Expectations of Chartists and Fundamentalists. AU Frankel, Jeffrey A.; Froot, Kenneth A. AA Frankel: Department of Economics, University of California at Berkeley. Froot: Sloan School of Management, Massachusetts Institute of Technology. SR University of California at Berkeley Department of Economics Working Paper: 8603; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 48. PR No Charge. JE 431, 313, 023. KW Speculative Bubble. Expectations. Dollar. Interest Rates. Current Account.

AB Several recent developments have inspired us to consider a non-standard model of the dollar as a speculative bubble without the constraint of fully rational expectations: (1) the dollar continued to rise in 1984 after real interest rate differentials and other fundamentals began moving the wrong way; (2) the results of market efficiency tests imply that the rationally expected rate of dollar depreciation was less than the forward discount; (3) Krugman-Marris current account calculations suggest that the rationally expected rate of depreciation was greater than the forward discount; (4) survey data show an expected rate of depreciation that was also greater than the forward discount; (5) the hypothesis of a "safe-haven" shift into United States assets and a decrease in the United States risk premium, which would explain some of the foregoing, is contradicted by a decline in the differential between offshore interest rates (covered) and United States interest rates. Our model features three classes of actors: fundamentalists, chartists and portfolio managers. Fundamentalists forecast a depreciation of the dollar based on an overshooting model that would be rational if there were no chartists. Chartists extrapolate recent trends based on an information set that includes no fundamentals. Portfolio managers take positions in the market, and thus determine the exchange rate, based on expectations that are a weighted average of the fundamentalists and chartists. The first stage of the dollar appreciation after 1980 is explained by increases in real interest differentials. The second stage is explained by the endogenous takeoff of a speculative bubble when the fundamentalists have mis-forecast for so long that they have lost credibility. In 1985, the dollar may have entered a third stage in which an ever-worsening current account deficit begins a reversal of the bubble.

PD August 1, 1986. TI Using Survey Data to Explain Standard Propositions Regarding Exchange Rate Expectations. AU Frankel, Jeffrey A.; Froot, Kenneth A. AA Frankel: Department of Economics, University of California at Berkeley. Froot: Sloan School of Management, Massachusetts Institute of Technology. SR University of California at Berkeley Department of Economics Working Paper: 8604; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 43. PR \$3.50. JE 431. KW Exchange Rates. Expectations. Survey Data. Dollar.

Risk Premium. Forward Rate.

AB Survey data provide a measure of exchange rate expectations superior to the forward rate in that no risk premium interferences. We test standard propositions using three new sources of survey data. We estimate extrapolative, adaptive and regressive models of expectations. Static or "random walk" expectations and bandwagon expectations are rejected: current appreciation generates the expectation of future depreciation because variables other than the contemporaneous spot rate receive weight. For example, when the dollar was strong, 1981-85, it was expected to depreciate strongly against five foreign currencies. In the spot rate we find statistically significant bias.

PD November 1986. TI Three Essays Using Survey Data on Exchange Rate Expectations. AU Frankel, Jeffrey A.; Froot, Kenneth A. AA Frankel: University of California at Berkeley. Froot: MIT. SR University of California at Berkeley Department of Economics Working Paper: 8614; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 136. PR \$3.50. JE 431, 026. KW Exchange Rates. Expectations. Survey Data. Risk Premium.

AB Three papers use data from surveys of market participants, to measure exchange rate expectations without having to make arbitrary assumptions about the risk premium in the forward exchange market. The first paper estimates extrapolative, adaptive, and regressive models; it finds that expectations are stabilizing. The second considers the popular regression of ex post depreciation against the forward discount. The third examines the difference between short-term and long-term expectations. In each paper we reject the hypotheses that one can statistically infer expectations from ex post exchange rate changes, i.e., we find evidence of systematic expectational errors.

Friedman, Benjamin M.

PD March 1987. TI New Directions in the Relationship Between Public and Private Debt. AA Department of Economics, Harvard University. SR National Bureau of Economic Research Working Paper: 2186; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 322, 321, 310, 521. KW Public Debt. National Debt. Private Sector Borrowing. Government Borrowing. Debt Markets.

AB Until the 1980s the outstanding indebtedness of government and private-sector borrowers in the United States exhibited sufficient negative covariation that total outstanding debt remained steady relative to nonfinancial economic activity. Three hypotheses -- one based on lenders' behavior, one on borrowers' behavior, and one on credit market institutional arrangements -- provide potential explanations for this phenomenon. Since 1980 the United States debt markets have departed from these previously prevailing patterns, however, as both government and private borrowing have risen sharply.

Frisvold, George

PD January 1987. TI The Effects of Job Site Sanitation and Living Conditions on the Health and Welfare of Agricultural Workers. AU Frisvold, George;

Mines, Richard; Perloff, Jeffrey M. AA Frisvold and Perloff: Department of Agricultural and Resource Economics; University of California, Berkeley. Mines: United States Government Accounting Office. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 431; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 27. PR \$5.40. JE 813, 913, 822. KW Sanitation. Agricultural Workers. Living Conditions. Health. Welfare. Agricultural Labor. Farm Workers.

AB The lack of field toilets on agricultural job sites increases the probability of gastrointestinal disorders by 60 per cent. Adverse living conditions significantly increase the probability of gastrointestinal, respiratory, and muscular problems. These three health problems do not appear to increase the probability that a worker's family is on welfare or lower workers' earnings. Respiratory problems, however, substantially increase the probability that the worker receives unemployment compensation.

Froot, Kenneth A.

TI Explaining the Demand for Dollars: International Rates of Return and the Expectations of Chartists and Fundamentalists. AU Frankel, Jeffrey A.; Froot, Kenneth A.

TI Using Survey Data to Explain Standard Propositions Regarding Exchange Rate Expectations. AU Frankel, Jeffrey A.; Froot, Kenneth A.

TI Three Essays Using Survey Data on Exchange Rate Expectations. AU Frankel, Jeffrey A.; Froot, Kenneth A.

Fudenberg, Drew

PD May 1, 1986. TI Reputation and Multiple Opponents I: Identical Entrants. AU Fudenberg, Drew; Kreps, David M. AA Department of Economics, University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8602; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 50. PR \$3.50. JE 022, 026. KW War of Attrition. Reputation. Predatory Pricing. Information.

AB Imagine that one player, the "incumbent," competes with several "entrants." Each entrant competes only with the incumbent, but observes play in all contests. Previous work shows that, as more and more entrants were added, the incumbent's reputation may dominate the play of the game, if the entrants are faced in sequence. We identify conditions under which similar results obtain when the entrants are faced simultaneously, and find specifications in which adding more simultaneous entrants has a dramatically different effect. We also show that, with either sequential or simultaneous play, incumbent reputations can and do dominate play to the "informationally isolated" case in which either entrant observes only play in its own contest.

TI Noncooperative Game Theory for Industrial Organization: An Introduction and Overview. AU Tirole, Jean; Fudenberg, Drew.

Fuhrer, Jeffrey C.

PD January 1986. TI Information Gathering and

Expectation Formation under Model Uncertainty. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 192; Special Studies Section Mail Stop 180, Federal Reserve Board, 20th and Constitution Avenue NW 20551. PG 32. PR No Charge. JE 023, 026, 211, 141, 131. KW Expectations. Information. Uncertainty. Priors. Learning. Loss Function. Information Costs.

AB This paper integrates model uncertainty and information gathering into a single theory of expectation formation. The method presented below devotes attention to learning, since agents learn about the nature of the true macroeconomic process, and to optimal information acquisition, as agents optimally choose whether and how much information to purchase. The main results are as follows. An optimal amount of information gathering will be calculated for given priors, information costs and loss function. The model chosen by the agent to form expectations will depend critically upon the cost of obtaining information, his prior assessments of the likelihood of competing models, the differences among the conditional distributions of the expectation variable implied by each model, and on the potential economic loss from acting based upon an "incorrect" model. A simple economic model is developed to illustrate the features of this expectation behavior.

PD January 1986. TI A Production Smoothing Model of Aggregate Inventory Behavior with Expectation Errors Generated by Model Uncertainty. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 193; Special Studies Section Mail Stop 180, Federal Reserve Board, 20th and Constitution Avenue NW, 20551. PG 40. PR No Charge. JE 131, 211, 026, 141, 023. KW Expectations. Uncertainty. Inventories. Persistence. Production Smoothing.

AB This paper explores the ability of an augmented production smoothing model of inventory behavior to explain macroeconomic fluctuations. It differs from previous attempts to do the same in the following ways: (1) It assumes that firms making inventory decisions are uncertain about the model generating their own sales, thus expanding the possibility for rational, expectation error-induced inventory fluctuations; (2) Several representative sectors are estimated, and each is allowed differential model uncertainty; (3) The effects of aggregating the production smoothing behavior over the model-uncertain representative firms is examined. The results are encouraging. The properties of simulated aggregate production from the model are shown to deviate insignificantly from the actual properties of a measure of aggregate output.

PD January 1986. TI Model Uncertainty, Expectation Formation and Shock Persistence. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 194; Special Studies Section Mail Stop 180, Federal Reserve Board, 20th and Constitution Avenue NW 20551. PG 61. PR No Charge. JE 131, 026, 141, 212, 023. KW Expectations. Uncertainty. Persistence. Time Series. Expectational

Errors.

AB This paper will develop a model in which only expectational errors can keep the economy from its full employment level. Drawing on some of my earlier work on expectation formation, I will assume that agents are uncertain about the mechanisms generating the economic data they observe. Given a characterization of this "model uncertainty" and an objective function for the agents, it will be possible to derive optimal expectation behavior for the agents. Linking the agents' behavior into the overall economy will allow us to place restrictions on the time series process of expectational errors and thus the process describing output deviations. The theory suggests that expectation errors and thus output deviations exhibit non-trivial time series properties, possibly with long lags and high persistence. Empirical tests confirm that this model plays a significant role in explaining macroeconomic fluctuations.

PD February 1987. **TI** On the Information Content of Consumer Survey Expectations. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 204; Special Studies Section Mail Stop 180, Federal Reserve Board, 20th and Constitution Avenue, NW, Washington DC 20551. **PG** 17. **PR** No Charge. **JE** 225, 229, 131, 132, 133, 011, 212. **KW** Expectations. Survey. Consumer. Information. **VAR**. Animal Spirits.

AB Numerous studies have shown survey data to be inefficient forecasts with respect to information available at the time of forecast, or even with respect to their own history. However, not much attention has been given to the possibility that survey expectations, however inefficient, might contain important information about agents' actual expectations. This possibility is particularly important if such information is not contained in standard macroeconomic data bases (e.g. if surveys capture "animal spirits" expectations). This paper will use the forecast errors from a large and comprehensive forecasting model as a measure of the variation in key macroeconomic variables which is orthogonal to the macroeconomic data base. We will use simple VAR methods to determine whether the survey data would have been able to predict subsequent forecast errors made by the forecasting model, assessing the statistical reliability and quantitative importance of their predictive power. The results indicate that the survey data do contain important information; that is, the survey data can predict reliably a quantitatively significant portion of the model's forecast errors. Since the survey data consistently explain the model's consumption forecast errors, this finding is consistent with a model in which consumer spending is at least partially driven by "animal spirits" expectations which become self-fulfilling.

Gajda, J.

PD 1985. **TI** Time Series of Bilateral Commodity Flows for Sixteen Countries and Eight Groups of Countries 1960-1982. **AU** Gajda, J.; Welsch, H. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-38; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 52. **PR** No Charge. **JE** 421, 431, 132, 212. **KW** Bilateral Commodity

Flows. World Model. Data.

AB This paper is a collection of the time series data for bilateral commodity flows for 16 countries and 8 groups of countries, 1960-1982.

PD 1985. **TI** Time Series of Bilateral Commodity Import Shares for Sixteen Countries and Eight Groups of Countries 1960-1982. **AU** Gajda, J.; Welsch, H. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-37; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 52. **PR** No Charge. **JE** 421, 431, 132, 212. **KW** Imports. World Model. Trade. Data. Import Shares.

AB This paper is a collection of the time series data for bilateral commodity import shares for 16 countries and 8 groups of countries, 1960-1982.

PD 1985. **TI** Time Series of Bilateral Commodity Export Shares for Sixteen Countries and Eight Groups of Countries 1960-1982. **AU** Gajda, J.; Welsch, H. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-35; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 52. **PR** No Charge. **JE** 421, 431, 132, 212. **KW** Exports. World Model. Trade. Data. Export Shares.

AB This paper is a collection of the time series data for bilateral commodity export shares for 16 countries and 8 groups of countries, 1960-1982.

TI Economic Structural Change. The Bonn IIASA Research Project: Theoretical Background and Actual State. **AU** Krelle, W.; Dobrinsky, R.; Gajda, J.; Ross, H.; Szekely, I.; Welsch, H.

Garella, Paolo G.

PD 1986. **TI** Adverse Selection and Intermediation. **AA** Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8644; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 14. **PR** No Charge. **JE** 611. **KW** Intermediary. Price Discrimination. Pareto Improvement. Retailer. Risk-Spreading.

AB The paper deals with the intervention of an intermediary in a market where adverse selection destroys the agents' trade possibilities. It is assumed that the intermediary, like any other buyer, cannot distinguish the good quality from the bad quality commodity units. The main result is that random price discrimination of the sellers is sufficient to make intermediation profitable, if some conditions on the qualities distribution over the sellers population are satisfied. In particular, random price discrimination is a way of (partially) sorting out qualities, and obtains a reduction in the per unit cost of purchasing a lot of given average quality. The intermediary's intervention leads to an ex ante Pareto improvement.

Gerard, Varet Louis Andre

TI On Monopolistic Competition and Involuntary Unemployment. **AU** dAspremont, Claude; Ferreira, Rodolphe Dos Santos; Gerard, Varet Louis Andre.

Gerards, Albertus M. H.

PD December 1986. TI Total Dual Integrality Implies Local Strong Unimodularity. AU Gerards, Albertus M. H.; Sebo, Andras. AA Gerards: Tilburg University, Netherlands. Sebo: Computer and Automation Institute Budapest, Hungary. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86446-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 7. PR No Charge. JE 213. KW Integrality of Polyhedra. Total Dual Integral. Unimodular. Polyhedron. AB We prove that any totally dual integral description of a full dimensional polyhedron is locally strongly unimodular in every vertex.

Giavazzi, Francesco

PD October 1986. TI The Advantage of Tying One's Hands: EMS Discipline and Central Bank Credibility. AU Giavazzi, Francesco; Pagano, Marco. AA via Bigli 21, 20121 - Milan, Italy Facolta di Scienze Politiche, University of Naples, Italy. SR Centre for Economic Policy Research Discussion Paper: 135; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 432, 311, 431, 131, 134. KW EMS. Competitiveness. Exchange Rates. Inflation. Monetary Policy. Employment. Credibility.

AB It is often argued that the EMS is an effective disciplinary device for inflation-prone countries in the EEC, since it forces policy-makers in these countries to pursue more restrictive monetary policies than they would otherwise. It is not clear, however, why these countries should submit themselves to such discipline. This paper argues that in order to answer this question appropriately, one must consider that EMS membership brings potentially large credibility gains to policy-makers in high-inflation countries: the reason is that not only it attaches an extra penalty to inflation (in terms of competitiveness losses), but makes the public aware that the policy-maker is faced with such penalty, and thus helps to overcome the inefficiency stemming from the public's mistrust for the authorities. We study the conditions under which these credibility gains are larger than the penalties that the policy-maker incurs in equilibrium. When policy-makers attach no value to inflationary finance, we find that they will always prefer EMS membership. When the policy-maker needs revenue from the inflation tax, however this conclusion is not always true. The opposite contention, that EMS membership is an inferior regime for any government that needs inflationary finance is also generally incorrect. The outcome of the welfare comparison depends (i) on the value placed by the policy-maker on seigniorage relative to the discounted output cost of inflation, and (ii) on the tightness of EMS discipline, as measured by the time interval between realignments and by the portion of lost competitiveness that the country is not allowed to recover at realignments.

Gilles, Christian

PD September 1986. TI On the Ineffectiveness of Shifts in Government Policy. AU Gilles, Christian;

Lawrence, Colin. AA Gilles: University of California Santa Barbara and Carleton University. Lawrence: Columbia University, Graduate School of Business. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-40; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 023, 311, 321, 134, 021. KW Monetary Policy. Fiscal Policy. Modigliani-Miller Theorem.

AB We derive general conditions under which a government policy shift has no effect, using the proof of the Modigliani-Miller theorem in corporate finance. We then show that several examples that have previously appeared in the literature are but special cases of our ineffectiveness principle. Applying the general conditions directly yields a great simplification of most proofs and a better intuitive understanding of the results.

Gilligan, Thomas W.

PD January 30, 1987. TI The Economic Incidence of the Interstate Commerce Act of 1887: A Theoretical and Empirical Analysis of the Shorthaul Pricing Constraint. AU Gilligan, Thomas W.; Marshall, William J.; Weingast, Barry R. AA Gilligan: California Institute of Technology. Marshall: Goldman-Sachs, Inc. Weingast: Washington University. SR Caltech Social Science Working Paper: 629; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 29 PP. PR No Charge. JE 612, 611, 613, 615. KW Shorthaul Pricing Constraint. Regulation. Interstate Commerce Act. Interstate Commerce Commission. ICC. Railroads. Shippers. Private Interests.

AB The public and private interest hypotheses permeate contemporary regulatory analyses. Both theories are used to explain the inception of the first major federal regulatory agency, the Interstate Commerce Commission (ICC). According to the public and private interest hypotheses, the regulations promulgated by the ICC benefited either railroads or shippers. This paper presents an alternative view consistent with the multiple interest theory of regulation. It is demonstrated that the major regulatory instrument of the ICC, the shorthaul pricing constraint (SHPC), altered the equilibria of railroad markets in a way which benefitted the class of shippers (shorthaul shippers) facing monopolistic railroad markets. The SHPC also benefitted some railroads by increasing the correspondence between unregulated, cooperative and regulated, noncooperative levels of longhaul shipments. The proposition that the ICC benefited shorthaul shippers and railroads is supported by an empirical analysis of the effects of the inception of federal regulation and implementation of the SHPC on stock prices. The results of the paper indicate that the public and private interest interpretations of the ICC are neither contradictory or complete, but instead are complementary. A theoretical and empirical analysis of the chief regulatory mechanism of the ICC provides this synthesis.

PD March 12, 1987. TI Collective Decision-Making and Standing Committees: An Informational Rationale for Restrictive Amendment Procedures. AU Gilligan,

Thomas W.; Krehbiel, Keith. AA Gilligan: California Institute of Technology. Krehbiel: Graduate School of Business, Stanford University. SR Caltech Social Science Working Paper: 632; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 49. PR No Charge. JE 025, 511. KW Collective Decision-Making. Restrictive Procedures. Committees. Policy Making. Congress. Legislatures. Information.

AB Specialization is a predominant feature of informed decision-making in collective bodies. In most collective decision-making bodies, the relationship between a committee and the parent body is governed by a complex array of procedures. A common feature of such procedures is that they restrict the ability of the parent body to amend committee proposals. The prevalence of procedures that restrict the ability of the parent body to amend its committees' proposals is puzzling because the procedures themselves are normally subject to parent body approval. For example, Section 1, Article IV of the United States Constitution states that "Each House may determine the rules of its proceedings," and the exercise of this right is theoretically subject to simple majority rule. Why, then, would the parent body agree to procedures that may ultimately restrict its ability to amend committee proposals? Why and under what conditions would a majority commit to a process that appears to limit its influence on legislative policy? The thesis of this paper is that restrictions on the ability of a parent body to amend committee proposals can enhance the informational role of committees. More precisely, restrictive procedures can encourage committees to gather information and can facilitate the adoption of informed policies that are jointly beneficial to the committee and parent body. Thus, acting in its self-interest, the parent body often restricts its ability to amend committee proposals.

Giovannini, Alberto

PD September 1986. TI The Macroeconomics of Exchange-Rate and Price-Level Interactions: Empirical Estimates for West Germany. AA Columbia Business School. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-37; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 25. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 431, 023, 211, 134. KW Inflation. Rational Expectations. Exchange Rate. Germany. Prices. VAR. Vector Autoregression.

AB This paper estimates conditional correlations between the price level and the exchange rate in the short run and in the long run. For this purpose I compare the predictions of a fully specified macro model, which incorporates all the effects commonly discussed in the literature on this subject, with those of an unconstrained vector autoregression.

PD October 1986. TI Time-Varying Distributions of Returns, Nominal Interest Rates and Risk Premia in a Dynamic Asset Pricing Model. AA Graduate School of Business, Columbia University. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-36; First Boston Series, Graduate School of

Business, Columbia University, New York, NY 10027. PG 16. PR \$5.00 academics and non-profit institutions; \$6.00 corporations. JE 313, 311, 026, 131. KW Interest Rates. Risk Premium. Asset Pricing Model. Exogenous Shocks. Volatility. Dividends. Common Stocks. Bonds.

AB This paper illustrates an extension of the model of Svensson (1985) to allow for stochastically changing distributions of exogenous shocks. The important results are: (i) When the distributions of shocks are i.i.d. conditional on the state of the economy, the nominal interest rate is a sufficient statistic of the state of the economy, and fluctuates together with the predictable changes in volatility of returns. (ii) As appears to be the case in the empirical data, higher nominal interest rates are associated with higher volatility of returns if relative risk aversion is greater than 1. (iii) When fluctuations in nominal interest rate arise only from changes in the volatility of future dividends, the expected nominal return differential between common stocks and a nominal inside bond -- the nominal "risk premium" -- is positively correlated with the nominal interest rate.

Glazer, Jacob

PD October 1986. TI The Choice of Research Techniques with Uncertain Success Probabilities in Rivalrous Situations. AA Bell Communications Research Incorporated. SR Bell Communications Research Incorporated Economics Discussion Paper: 23; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 30. PR No Charge. JE 611, 621, 026. KW Research and Development. Firm Strategies. Competition. Duopoly. R & D.

AB This paper characterizes the duopolists' choices of research techniques in situations in which there are several techniques available and firms are uncertain about the probability of success with each technique. Two cases are considered: one in which firms' research outcomes become public information prior to their competition in the product market, and the other, in which firms' research outcomes remain their private information when they enter this competition. The first case demonstrates the effects of the post-research payoff structure on the firms' choices of techniques and the second demonstrates the effects of the post-research information structure on their choices. In both cases, the equilibrium technique configurations are compared with the socially optimal ones. The equilibrium choices are shown to be not necessarily those that maximize social welfare.

PD January 1987. TI Managerial Incentives and Financial Signaling in Product Market Competition. AU Glazer, Jacob; Israel, Ronen. AA Israel: Department of Finance, Northwestern University. Glazer: Bell Communications Research, Incorporated. SR Bell Communications Research Incorporated Economics Discussion Paper: 26; Room, Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 15. PR No Charge. JE 521, 531, 511, 026, 611, 612. KW Capital Structure. Incentive Schemes. Signaling. Monopoly. Financial Structure.

AB The purpose of this paper is to show how firms may use financial actions as a signaling tool in the product

market competition. In the particular example studied here it is shown that a monopolist may change its financial structure, using this change as a signal to deter entry. It is shown that in many cases the financial signaling mechanism is much "cheaper" to the firms, than the prices signaling mechanism that was introduced by Milgrom and Roberts (1982). In this financial signaling mechanism the firms offer their managers an "appropriate" compensation scheme that creates the "right" incentives.

Glied, Sherry

TI Unlimited Liability and Free Banking in Scotland.
AU Carr, Jack; Glied, Sherry; Mathewson, Frank.

Goldfeld, Stephen M.

PD May 1986. TI The Econometrics of Rationing Models. AU Goldfeld, Stephen M.; Quandt, Richard E. AA Department of Economics, Princeton University. SR Princeton Econometric Research Program Memorandum: 322; Department of Economics, Princeton University, Princeton, NJ 08544. PG 31. PR \$2.00. JE 211, 022. KW Rationing. Disequilibrium. Loss Function. Uncertainty.

AB We analyze two types of policy rules for the problem of a policy maker who chooses an instrument and rations so as to minimize a loss function in the face of uncertainty. Several estimating methods are derived, and their comparative properties are studied by use of sampling experiments.

Goldscheider, Frances Kobrin

PD July 1986. TI Sex Differences in the Entry Into Marriage. AU Goldscheider, Frances Kobrin; Waite, Linda J. AA Goldscheider: Brown University. Waite: Rand Corporation. SR Rand Note: N-2544-NICHD; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90408-2138. PG 19. PR No Charge. JE 920, 841. KW Marriage Transition. Family. Adulthood. Marital Roles.

AB Among the many transitions young people make as they enter adulthood, marriage is perhaps the most important. This Note uses data from the National Longitudinal Surveys of Young Women and Young Men to examine the transition to marriage and how it differs by sex, testing the extent of variation in the desirability of marriage for men and women, and the effects of marriage market factors and marital and nonmarital roles. The design of the analysis allows the effects of these factors to vary over the young adult years. The pattern of findings suggests that recent declines in the marriage rate have not resulted from increased barriers to marriage but from declines in relative preferences for marriage.

Gordon, Robert J.

PD September 1986. TI Productivity, Wages and Prices Inside and Outside of Manufacturing in the US, Japan and Europe. AA Department of Economics, Northwestern University, United States of America. SR Centre for Economic Policy Research Discussion Paper: 134; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 123, 134, 226, 824, 825.

KW Wage Gap. Labor Productivity. United States. Japan. Europe. Wage Rigidity.

AB This paper studies the dynamic behaviour of changes in productivity, wages, and prices. Results are based on a new data set that allows a consistent analysis of the aggregate economy, the manufacturing sector, and the non-manufacturing sector. Results are presented for the United States, Japan, and an aggregate called "Europe" consisting of eleven European economies. The primary theme of the paper is that the differences between Europe and the United States have been substantially exaggerated in recent work. Europe has neither greater nominal wage flexibility nor more rigid real wages than the United States. Evidence that the United States exhibits more nominal rigidity is confined to manufacturing, while the United States aggregate and non-manufacturing sectors display as much nominal wage flexibility as Europe, and similar "output sacrifice ratios" as well. These results undermine the case frequently made against demand expansion in Europe namely that as a result of a uniquely vertical European aggregate supply curve, such a demand expansion would only create more inflation without bringing any of the benefits of increased output. The analysis of real wages also yields new results. A consistent treatment of the income of the self-employed almost completely eliminates the secular increase between the 1960s and 1980s in the wage gap indices for Japan and Europe. If anything, real wages in Europe and Japan were too flexible rather than too rigid, in the sense that much of the increase in wage gap indices in Europe during 1968-70 and in Japan in 1973-74 can be interpreted as autonomous wage push. Only a very small part of the increase in the wage gap can be attributed to a failure of real wages to respond to the post-1972 productivity growth slowdown. The paper's analysis of productivity change confirms the real-wage elasticity of labour input emphasized previously, but shows that the response of productivity to changes in the real wage, and to cyclical output fluctuations, is roughly the same the United States, Japan, and Europe. The cyclical analysis allows an estimate of trend productivity growth, revealing interesting differences between the manufacturing and non-manufacturing sectors in the three economies.

Gourieroux, C.

PD January 1987. TI Testing for Common Roots. AU Gourieroux, G.; Monfort, A.; Renault, E. AA Gourieroux: Lille I University. Monfort: INSEE. Renault: Paris IX University. SR Unite de Recherche Document de Travail ENSAE/INSEE: 8701; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. PG 32. PR No Charge. JE 211. KW Common Roots. Generalized Wald Tests. Bezout Identity. Hypothesis Testing.

AB In this paper we propose a simple test procedure for testing the existence of common roots in lag polynomials. We first show, by using a generalised Bezout property that this hypothesis can be put under a "mixed" form which is linear with respect to the auxiliary parameters. It follows that the test procedures can be implemented only by using regressions packages.

Graetz, Michael J.

TI Are we a Nation of Tax Cheaters? New Econometric Evidence on Tax Compliance. **AU** Dubin, Jeffrey A.; Graetz, Michael J.; Wilde, Louis L.

Greenwald, Bruce

PD March 1987. **TI** Money, Imperfect Information and Economic Fluctuations. **AU** Greenwald, Bruce; Stiglitz, Joseph E. **AA** Greenwald: Bell Communications Research. Stiglitz: Princeton University. **SR** National Bureau of Economic Research Working Paper: 2188; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 131, 311, 133, 134, 023. **KW** Financial Markets. Credit Rationing. Business Cycles. Monetary Policy. Demand Fluctuations. Interest Rates. Price Rigidities.

AB This paper summarizes the macro-economic and, in particular, monetary and financial market implications of recent developments in the micro-economic theory of imperfect information. These micro-economic models which lead to credit-rationing on the one hand and limitations in the availability of equity type financing on the other can account for a wide range of observed business cycle and monetary phenomena. These include (a) unemployment, (b) the existence of Keynesian-type multiples, (c) the observed lack of production smoothing in response to cyclical fluctuations in demand, (d) the impact of monetary policy on business activity despite the absence of significant changes in real interest rates, and (e) price rigidities which arise from rational firm decisions (not as an a priori assumption).

Greenwood, Jeremy

PD November 1986. **TI** A Dynamic Equilibrium Model of Inflation and Unemployment. **AU** Greenwood, Jeremy; Huffman, Gregory. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8613; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 38. **PR** No Charge. **JE** 023, 131, 134, 824, 311. **KW** Business Cycles. General Equilibrium. Money Supply. Monetary Policy.

AB The present paper attempts to capture part of the spirit of the real business cycle literature in a model in which money is introduced. A stochastic general equilibrium model is constructed which is capable of examining the covariance properties between unemployment and inflation, both conditioned and unconditioned upon exogenous factors such as the current growth rate of the money supply, the level of productivity, etc. The model exhibits some interesting features. First, it is shown that natural forces in the economy may operate to generate an endogenous negative relationship between unemployment and inflation. This is interesting since it has been argued that real business cycle models are incapable of explaining the procyclical nature of prices (see Lucas (1977)). Second, despite this apparent negative association between unemployment and inflation, the actual trade-off which the policymaker confronts is one in which these two variables are positively related. Also, in contrast to the work of Lucas (1972), the model employed

does not rely on agents' misperceptions about the current rate of monetary expansion.

Grotschel, M.

PD November 1986. **TI** A Cutting Plane Algorithm for Minimum Perfect 2-Matchings. **AU** Grotschel, M.; Holland, O. **AA** Grotschel: University of Augsburg. Holland: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86440-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 25. **PR** No Charge. **JE** 213. **KW** Cutting Plane Algorithm. Perfect 2-Matching Problem. Radberg-Rao Procedure. Simplex Algorithm. Linear Programming. **AB** We describe an implementation of a cutting plane algorithm for the minimum weight perfect 2-matching problem. This algorithm is based on Edmonds' complete description of the perfect 2-matching polytope and uses the simplex algorithm for solving the LP-relaxations coming up. Cutting planes are determined by fast heuristics, or, if these fail, by an efficient implementation of the Padberg-Rao procedure, specialized for 2-matching constraints. With this algorithm 2-matching problems on complete graphs with up to 1000 nodes (i.e., 499500 variables) have been solved in less than 1 hour CPU time on a medium speed computer.

Gunderson, Morley

TI Retirement Incentives Contained in Occupational Pension Plans and Their Implications for the Mandatory Retirement Debate. **AU** Pesando, James E.; Gunderson, Morley.

Gupta, Sunil

PD December 1986. **TI** Resolving a Conflict Situation With a Status-Quo Outcome: An Axiomatic Model. **AU** Gupta, Sunil; Livne, Zvi A. **AA** Columbia Business School. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-39; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 26. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). **JE** 026, 025, 832, 213. **KW** Cooperative Games. Bargaining. Axiomatic Models. Conflict. Nash Bargaining Problem.

AB We present an axiomatic model of conflict situations in which there exist two reference points. One is the conflict outcome, the other is the status quo outcome. The latter is an inefficient outcome which, all the parties agree, should be Pareto-improved upon. The model is an extension of Nash's Bargaining Problem paradigm, and the solution function we propose is an extension of the Kalai-Smorodinsky solution.

Habicht, Jean Pierre

TI Infant Mortality Decline in Malaysia, 1946-1975: The Roles of Changes in Variables and Changes in the Structure of Relationships. **AU** DaVanzo, Julie; Habicht, Jean Pierre.

TI Why Were Infant and Child Mortality Rates Highest in The Poorest States of Peninsular Malaysia, 1941-75?

AU Peterson, Christine; Yusof, Khairuddin; DaVanzo, Julie; Habicht, Jean Pierre.

Hall, Anthony D.

TI Tests for Non-nested Linear Regression Models Subject to Linear Restrictions. AU Pesaran, M. Hashem; Hall, Anthony D.

TI Testing Separate Time Series Models. AU McAleer, Michael; McKensie, Colin; Hall, Anthony D.

Hall, Bronwyn H.

PD March 1987. TI The Effect of Takeover Activity on Corporate Research and Development. AA National Bureau of Economic Research and Stanford University. SR National Bureau of Economic Research Working Paper: 2191; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 621, 611, 522, 514. KW Takeovers. R&D. Research and Development. Technical Progress. Corporate Mergers. Acquisitions.

AB It is widely thought that increases in corporate mergers and acquisitions of the sort which the United States has experienced in the recent past lead to a reduction in such longterm investment activities as R&D because of a shortened horizon on the part of managers. This paper uses a newly created dataset containing all acquisitions of publicly traded firms in the manufacturing sector in the last ten years to answer some basic questions which pertain to this issue. I find that the firms involved in acquisitions and mergers where both partners are in the manufacturing sector have roughly the same pattern of R&D spending as the sector as a whole and that the acquisition itself does not cause a reduction in R&D activity on the part of these firms. Moreover, the R&D capital thus acquired is valued more highly by the acquiring firm than by the stock market. On the other hand, I also find that the substantial increase in the number and size of acquisitions made by privately held firms in the eighties is concentrated primarily on firms with low R&D intensity which also are in non-R&D intensive industries. Because the pattern of low investment in R&D is longstanding, and because the firms taken over have less rather than more R&D capital than the industry as a whole, it seems unlikely that the recent increase in takeover activity has had a significantly negative effect on R&D spending in these industries.

Haltiwanger, John

PD February 1987. TI Responders Versus Nonresponders: A New Perspective on Heterogeneity. AU Haltiwanger, John; Waldman, Michael. AA Haltiwanger: Department of Political Economy, The Johns Hopkins University. Waldman: Department of Economics, University of California at Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 436; Department of Economics - University of California at Los Angeles Los Angeles, CA 90024. PR \$2.50. JE 022. KW Non-Market Clearing Wages. Network Externalities. First Mover Advantage. Near Rationality. Congestion. Synergism. Reputation.

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. In this paper we provide a general method of analysis for this heterogeneity, and then show how this general method of analysis can be used to understand a wide variety of economic environments. Particular applications considered include: (i) the recent work on the evolution of market outcomes given network externalities; (ii) recent research on heterogeneity in information processing abilities; and (iii) work on reputation in models exhibiting the last period problem.

Ham, John

PD September 1986. TI Unemployment Insurance and Male Unemployment Duration in Canada. AU Ham, John C.; Rea, Jr Samuel A. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8614; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 47. PR No Charge. JE 822, 824. KW Unemployment Duration. Unemployment Insurance. Heterogeneity. Canada.

AB A model of unemployment duration is estimated with weekly micro data on a sample of Canadian men during the 1975 through 1980 period. Entitlement provisions in the unemployment insurance program and demand conditions are found to have a significant impact on the probability of leaving unemployment. The probability of a worker leaving unemployment declines with duration of unemployment, holding unemployment insurance entitlement constant. When entitlement is allowed to vary, the probability of leaving first falls and then generally rises with unemployment duration as the declining entitlement induces a greater willingness to accept offers or search more intensively. These results are robust to alternative specifications of duration dependence and to allowing for person-specific unobserved heterogeneity.

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

Hammitt, James K.

PD October 1985. TI Limiting Liability for Automobile Accidents: Are No-Fault Tort Thresholds Effective? AU Hammitt, James K.; Rolph, John E. AA Rand Corporation. SR Rand Report: N-2418-ICJ, The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 15. PR No Charge. JE 916, 615. KW Liability Insurance. Car Insurance. Liability Suits.

AB "No-fault" automobile insurance plans are designed to supplant the tort system by requiring motorists to purchase no-fault insurance and allowing victims to file liability insurance claims and tort suits only if their injuries exceed a legislated "tort threshold." While thresholds vary among states, many are satisfied if the victim incurs medical expenses as low as a few hundred dollars. Using insurance claims data, the authors estimate the effectiveness of several states' thresholds. They find that tort thresholds are surprisingly effective: modest tort thresholds reduce the number of successful tort claimants

by half, and the strictest thresholds may exclude nine-tenths of potential claimants. Moreover, they find little evidence of claimants "padding" their claims to exceed the dollar thresholds. This Note is a reprint of an article that appeared in *Law & Policy* in October 1985.

PD October 1986. **TI** Estimating Consumer Willingness to Pay to Reduce Food-Borne Risk. **AA** Rand Corporation. **SR** Rand Report: R-3447-EPA; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. **PG** 104. **PR** No Charge. **JE** 722, 921, 711. **KW** Food. Revealed Preference. Contingent Valuation. Organically Grown Produce. Toxins. Pesticides. Risk.

AB This report analyzes consumer willingness to pay to reduce food-borne risks, focusing on consumer choice between organically and conventionally grown produce. It uses two alternative methodologies: a revealed preference analysis of actual market choices, and an exploratory contingent valuation survey administered to focus-group participants. Overall, the study confirms the possibility of deriving reasonable estimates of the additional value consumers place on organically grown produce. However, the extremely uncertain estimates of the risk avoided by choosing organically grown foods limits the ability to reliably estimate consumer willingness to pay for actual risk reduction.

Hansen, Lars Peter

PD May 1986. **TI** Asymptotic Covariance Matrix Bounds For Instrumental Variables Estimators of Linear Time Series Models. **AA** The University of Chicago and Program in Quantitative Economic Analysis/NORC. **SR** Economics Research Center/NORC Discussion Paper: 86-4; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. **PG** 33. **PR** \$2.00; Send requests to Librarian, Economics Research Center. **JE** 211. **KW** Parameter Estimation. Instrumental Variables. Time Series. Asymptotic Theory. **AB** This paper considers instrumental variables methods for studying linear models of economic time series. The instrumental variables used in estimating parameters are assumed to be uncorrelated with the disturbance vector but are not restricted to be strictly exogenous. A greatest lower bound on the asymptotic covariance matrices of a family of instrumental variables estimators is derived and characterized. This bound is then compared to bounds derived previously in both the econometrics literature and the engineering literature.

TI Estimating Models with Intertemporal Substitution Using Aggregate Time Series Data. **AU** Eichenbaum, Martin; Hansen, Lars Peter.

Hardle, Wolfgang

PD June 1986. **TI** Robust Nonparametric Regression With Simultaneous Scale Curve Estimation. **AU** Hardle, W.; Tsybakov, A. B. **AA** Hardle: University of Bonn. Tsybakov: Academy of Sciences of the USSR. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-59; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 21. **PR** No Charge. **JE** 211. **KW** Pointwise Joint Estimation. Nadaraya-

Watson Estimate. M-Estimation. Robust Curve Estimation. Nonparametric Regression.

AB Let (X_i, Y_i) , $i=1, \dots, n$ be independent, identically distributed random variables. Assume that the conditional distribution $F(y/x)$ can be parametrized by $F(y/x) = F_0((y - f(x))/S(x))$ with a fixed distribution F_0 , regression curve $f(x)$ and scale curve $S(x)$. We consider the pointwise joint estimation of $f(x)$ and $S(x)$ by M type estimates and show consistency and asymptotic normality of these estimates. It turns out that the asymptotic bias term of this robust estimate is the same as for the linear Nadaraya-Watson estimate.

PD June 1986. **TI** Strong Uniform Consistency Rates for Estimators of Conditional Functionals. **AU** Hardle, W.; Janssen, P.; Serfling, R. **AA** Hardle: University of Bonn. Janssen: University of Diepenbeek. Serfling: University of Baltimore. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-63; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 38. **PR** No Charge. **JE** 211. **KW** Strong Uniform Consistency. Kernel Type Estimators. Regression. Density Estimation. Conditional Density Functions. L-Smoothing. M-Smoothing.

AB Strong uniform consistency rates are established for kernel type estimators of functionals of the conditional distribution function, under general conditions. Specific applications treated in detail include regression curve estimation, density estimation, estimation of conditional df 's, L-smoothing and M-smoothing. Various previous results in the literature are extended and/or sharpened.

PD December 1986. **TI** Semiparametric Comparison of Regression Curves. **AU** Hardle, Wolfgang; Marron, J. S. **AA** Hardle: University of Bonn. Marron: University of North Carolina at Chapel Hill. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-93; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 45. **PR** No Charge. **JE** 211. **KW** Nonparametric Regression. Semiparametric Regression. Smoothing. Kernel Estimators.

AB The comparison of nonparametric regression curves is considered. It is assumed that there are parametric (possibly nonlinear) transformations of the axes which map one curve into the other. Estimation and testing of the parameters is studied. The rate of convergence is $1/\sqrt{n}$ although the nonparametric components of the model have typically a rate slower than that. A statistic is provided for testing the validity of a given completely parametric model.

Harper, Ian R.

TI Price and Quantity Controls as Facilitating Devices. **AU** Eichberger, Jurgen; Harper, Ian R.

Hausman, Jerry A.

PD March 1986. **TI** Efficient Estimation and Identification of Simultaneous Equations Models with Covariance Restrictions. **AU** Hausman, Jerry A.; Newey, Whitney K.; Taylor, William E. **AA** Hausman: Department of Economics, Massachusetts Institute of Technology. Newey: Department of Economics, Princeton

University. Taylor: Bell Communications Research. SR Princeton Econometric Research Program Memorandum: 329; Department of Economics, Princeton University, Princeton, NJ 08544. PG 58. PR \$2.00. JE 210, 211, 212. KW Simultaneous Equations. Covariance Restrictions. Instrumental Variables. Efficiency. Identification. FIML.

AB In this paper we consider estimation of simultaneous equations models with covariance restrictions. We first consider FIML estimation and extend Hausman's (1975) instrumental variables interpretation of the FIML estimator to the covariance restrictions case. We show that, in addition to the predetermined variables from the reduced form, FIML also uses estimated residuals as instruments for the equations with which they are uncorrelated. A slight variation on the instrumental variables theme yields a simple, efficient alternative to FIML. Here we augment the original equation system by additional equations that are implied by the covariance restrictions. We show that when these additional equations are linearized around an initial consistent estimator and three-stage least squares is performed on the original equation system together with the linearized equations implied by the covariance restrictions, an asymptotically efficient estimator is obtained. We also present a relatively simple method of obtaining an initial consistent estimator when the covariance restrictions are needed for identification. This estimator also makes use of additional equations that are implied by the covariance restrictions. In the final section of the paper we consider identification from the point of view of the moment restrictions that are implied by instrument-residual orthogonality and the covariance restrictions. We show that the assignment condition of Hausman and Taylor (1983) provides necessary conditions for the identification of the structural parameters.

PD August 1, 1986. TI Specifying and Testing Econometric Models for Rank-Ordered Data with an Application to the Demand for Mobile and Portable Telephones. AU Hausman, Jerry A.; Ruud, Paul A. AA Hausman: Massachusetts Institute of Technology. Ruud: Department of Economics, University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8605; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 48. PR \$3.50. JE 212, 211, 921. KW Logit. Rank Orderings. Preferences. Telephone Demand. Specification Tests. M-Estimator.

AB The rank-ordered logit model is used as the basic specification for rank-ordered consumer choice data. Two specification tests are proposed for this specification. The first is a Hausman specification test for the independence from irrelevant alternatives hypothesis. The second test examines the possibility that the estimates of equivalent prices are consistent. Two alternative estimators are proposed. One generalizes the rank-ordered logit specification to allow for a form of heteroskedasticity that permits top ranked choices to be more precisely ranked than bottom ranked choices. The other estimator is an application of a weighted M-estimator that yields consistent equivalent price estimators despite any misspecification of distribution in the rank-ordered logit

model.

Hayes, James H.

TI The Changing Balance - South and North Korean Capabilities for Long-Term Military Competition. AU Wolf, Charles; Henry, Donald P.; Yeh, K. C.; Hayes, James H.; Schank, John; Sneider, Richard L.

Helkie, William L.

PD February 1987. TI The U. S. External Deficit in the 1980's: An Empirical Analysis. AU Helkie, William L.; Hooper, Peter. AA Board of Governors of the Federal Reserve. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 304; Board of Governors of the Federal Reserve System, Washington, DC 20551. PG 71. PR No Charge. JE 431, 023, 212, 321. KW Trade Deficit. Trade Balance. Current Account. International Competitiveness. Exchange Rates. Fiscal Policy. J-Curve.

AB This paper presents an empirical analysis of the factors that contributed to the unprecedented widening of the United States external deficit between 1980 and 1986. The paper presents an empirical model of the United States current account that is used to assess the relative importance of changes in United States price competitiveness and changes in United States and foreign growth as determinants of the deficit. We find that while both factors were significant, the decline in United States competitiveness associated with the appreciation of the dollar was the dominant factor. The analysis is also pursued at a more fundamental level, using the results of various multicountry model simulations. We find that shifts in United States and foreign fiscal policy could account for over half of the widening of the deficit, but only part of the rise in the dollar. Given the importance of the dollar's appreciation to the widening of the deficit, we ask, finally, why the deficit (particularly in real terms) has been so slow to respond to the dollar's decline since early 1985. Several possible explanations are considered and we conclude that the delay can be attributed largely to normal lags in the response of trade prices and volumes to exchange rate changes. Moreover, the real net export deficit would have widened substantially further in the absence of the depreciation.

Helliwell, John F.

PD July 1986. TI Supply-Oriented Macroeconomics: The MACE Model of Canada. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre; Chung, Alan. AA Helliwell and Chung: University of British Columbia. MacGregor and Plourde: University of Toronto. McRae: University of Calgary. SR University of Toronto Institute for Policy Analysis Working Paper: 8609; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 62. PR No Charge. JE 132, 212, 122, 723. KW Macroeconomic Model. Supply Side. Simulation. Canada. Energy.

AB This paper describes MACE, a two-sector annual macroeconomic model of the Canadian economy. The sectoral breakdown highlights the role of energy in a small open economy. In addition, the model emphasizes the supply side, which includes both the evolution of normal

output, and the determination of the level of current output as the consequence of an explicit operating rate decision by firms. The bulk of the paper outlines the approach used to model supply-side considerations, since this is where most of the model's innovative features lie.

Hellwig, Martin

PD June 1986. TI Risikoallokation In Einem Marktssystem. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-62; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 32. PR No Charge. JE 026.

Helpman, Elhanan

PD January 1987. TI Macroeconomic Effects of Price Controls: The Role of Market Structure. AA Department of Economics; Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 3-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 28. PR No Charge. JE 133, 023, 611, 121. KW Price Controls. Market Structure. Stabilization. Competitive Markets. Oligopolistic Markets. Israel.

AB Price controls have different effects in competitive and oligopolistic markets. These differences are explored by means of models of the open economy. We study the effects of changes in aggregate spending, the real wage rate, employment and relaxation of price controls. The implications of the model with oligopolistic markets are shown to be consistent with Israeli data from the post stabilization era (after July 1985), while the implications of the competitive model are inconsistent with these data.

Hendershott, Patric H.

PD May 1987. TI Home Ownership and Real House Prices: Sources of Change, 1965-85. AA The Ohio State University. SR National Bureau of Economic Research Working Paper: 2245; National Bureau of Economic Research, 1050 Massachusetts Ave., Cambridge, MA 02138. PR \$2.00. JE 932, 134. KW Housing Prices. Housing Market. Real Estate. Inflation.

AB Two phenomena characterized the housing market in the 1970s: a somewhat-disguised surge toward home ownership and a well-publicized sharp increase in the real price of housing. These movements were partially reversed in the first half of the 1980s. In the "standard view", the 1970s changes are attributed to an interaction of the tax system and rising inflation. Given the disinflation of the 1980s, this explanation also seems consistent with the reversals in ownership and real prices. Recent work challenges the standard view. Inflation is said to disfavor home ownership, and real house prices are said to be determined largely by supply (cost), not demand, factors. This paper considers the data on home ownership and real house prices and evaluates the standard view vis-a-vis its challengers. Data from the 1980s suggest that other factors (probably rising income for ownership and negative construction productivity growth for real prices) were responsible for at least half of the 1970s increase in ownership and real price.

Henderson, J. Vernon

PD February 1987. TI Dynamic Aspects of Consumer Decisions in Housing Markets. AU Henderson, J. Vernon; Ioannides, Yannis M. AA Henderson: Brown University. Ioannides: Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E87-02-07; Department of Economics, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061. PG 26. PR Free. JE 932, 823, 212, 921. KW Housing. Mobility. Stock-flow. Panel Study. Income Dynamics. Renters. Homeowners.

AB In this study we estimate a model of the joint tenure, length of stay, and consumption level choices of families in the housing market. This is the first attempt we know of to do this type of estimation. The data pertain to a single residence spell per household from the Panel Study of Income Dynamics. Wealthier and better educated families were found to be more mobile. In terms of housing consumption, after accounting for tenure choice and controlling for planned length of stay, renters and owners were found to have similar demand function relationships in terms of the impacts of socioeconomic variables. This confirms the notion that renters and owners are not differentiated by housing choice but simply in life cycle circumstances as to when it is optimal to own or rent.

Hendricks, Kenneth

PD September 1986. TI Information, Returns, and Bidding Behavior in OCS Auctions: 1954-1969. AU Hendricks, Kenneth; Porter, Robert H.; Boudreau, Bryan. AA Bell Communications Research, Incorporated. SR Bell Communications Research Incorporated Economics Discussion Paper: 19; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 41. PR No Charge. JE 026, 025, 720, 632. KW Oil Leases. Gas Leases. Federal Auctions. Petroleum. Outer Continental Shelf.

AB This paper documents the relationship between information, bids, and ex post profits in the federal auctions of oil and gas leases for the Outer Continental Shelf (O.C.S.) from 1954 through 1969. We examine whether the properties of this relationship are consistent with the predictions of the first-price, sealed bid, common values model of auctions. We find that the data strongly support the predictions of the model for auctions in which one bidder is better informed than the other bidders. The evidence for auctions in which all bidders have noisy but qualitatively similar information about the value of a lease is less conclusive, but is consistent with a model in which the firms do not know the number of firms they are bidding against.

PD January 1987. TI The War of Attrition in Continuous Time With Complete Information. AU Hendricks, Ken; Weiss, Andrew; Wilson, Charles. AA Hendricks: State University of New York at Stony Brook. Weiss: Bell Communications Research. Wilson: New York University. SR Bell Communications Research Incorporated Economics Discussion Paper: 28; Bell Communications Research, Incorporated 435 South Street, Morristown, N.J. 07960-1961. PG 30. PR No Charge. JE 026, 022. KW Game Theory.

AB The paper provides a complete characterization of

the Nash equilibrium outcomes for the War of Attrition when time is continuous and information is complete. It allows for asymmetric payoffs and an arbitrary time horizon. In addition to certain (asymmetric) pure strategy equilibria which always exist, we establish the conditions under which there is also a continuum of mixed strategy equilibria. These are most likely to exist when either the horizon is infinite or the game is symmetric.

Henry, Donald Putnam

TI The Changing Balance - South and North Korean Capabilities for Long-Term Military Competition. **AU** Wolf, Charles; Henry, Donald P.; Yeh, K. C.; Hayes, James H.; Schank, John; Sneider, Richard L.

TI Surprises in the International Economy: Toward an Agenda for Planning and Research. **AU** Neu, C. R.; Henry, Donald Putnam.

Henry, S. G. B.

TI Public and Private Sector Pay: Some Further Results. **AU** Foster, N.; Henry, S. G. B.; Trinder, C.

Hickok, S.

PD October 1986. **TI** Foreign Direct Investment and Indebted Developing Countries. **AU** Hickok, S.; Arguelles, R. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8609; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PR** No Charge. **JE** 440, 433, 212, 121. **KW** Foreign Debt. Investment. Principal Components. External Debt. External Borrowing. LDC's.

AB The profitability of foreign direct investment (FDI) for indebted developing countries is examined. By looking at data for a broad spectrum of countries a benchmark level of FDI is suggested, equal to 2 percent of GDP, as feasible and acceptable, viewed in historical terms. The financial implications of meeting this benchmark level are that countries' borrowing needs can be significantly reduced and the scope of debt-to-equity swaps greatly increased. A fairly ambiguous assessment on the net return to host countries from FDI is made: the major benefit of FDI is the funds it brings into the host country and the major cost is the profit payments and royalties it takes out. The benefit significantly outweighs the cost on the order of 13 percent of the value of the investment. The indirect benefits and costs of FDI are of a relatively minor magnitude. As an alternative to external borrowing FDI is seen to be cost-effective. Through the ease of principal components technique it is found that the host country characteristics most attractive to foreign direct investors are openness to trade, competitiveness, and economic stability. All countries have the potential ability as well as the incentive to bolster the factors that attract FDI.

Hirsch, Werner Z.

PD January 1987. **TI** Rental Housing Data Base. **AA** Department of Economics, University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 428; Department of Economics - University of California at Los Angeles Los Angeles, CA 90024. **PR** \$2.50. **JE** 932.

KW Rent Control. Property Values. California.

AB A general model is built to test the effect of the legal environment, especially rent control, on residential income property values on the one hand and on rents on the other. Econometric tests are implemented for 9 California cities in the first instance and 59 cities in the second instance.

Hofmeister, M.

PD February 1987. **TI** Spectral Radius and Degree Sequence. **AA** University of Cologne. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 87/39; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** No Charge. **JE** 213. **KW** Nonregular Graph. P-Mean. Spectral Radius. Spectral Mean Characteristic.

AB For a nonregular graph there is exactly one value of p such that the p -mean of its degree sequence is equal to the spectral radius. We try to investigate the structural content of this so-called spectral mean characteristic; in particular, we characterize the connected graphs of spectral mean characteristic 2.

Holland, O.

TI A Cutting Plane Algorithm for Minimum Perfect 2-Matchings. **AU** Grotschel, M.; Holland, O.

Holmer, Martin R.

TI Choice Under Uncertainty and the Demand for Health Insurance. **AU** Marquis, Susan M.; Holmer, Martin R.

Holtz, Eakin Douglas

PD March 1987. **TI** The Revenues-Expenditures Nexus: Evidence from Local Government Data. **AU** Holtz, Eakin Douglas; Newey, Whitney; Rosen, Harvey. **AA** Holtz-Eakin: Department of Economics, Columbia University. Newey and Rosen: Department of Economics, Princeton University. **SR** National Bureau of Economic Research Working Paper: 2180; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 324, 322, 323, 212. **KW** Local Government. Government Revenue. Government Expenditures. Municipal Government. Vector Autoregression. **VAR**. Granger Causality. Federal Government. Taxes.

AB This paper examines the intertemporal linkages between local government expenditures and revenues. In the terminology that has become standard in the literature on vector autoregression analysis, the issue is whether revenues Granger-cause expenditures, or expenditures Granger-cause revenues. The main results that emerge from an analysis of fiscal data from 171 municipal governments over the period 1972-1980 are that: 1) one or two years are sufficient to summarize the relevant dynamic interrelationships; 2) there are important intertemporal linkages between expenditures, taxes and grants; and 3) past revenues help predict current expenditures, but past expenditures do not alter the future path of revenues. This last finding is contrary to results that have emerged from previous analyses of federal fiscal data, and hence suggests the need for additional research on the differences in the processes generating local and federal decisions.

Holzer, Harry J.

PD March 1987. **TI** Hiring Procedures in the Firm: Their Economic Determinants and Outcomes. **AA** Department of Economics, Michigan State University. **SR** National Bureau of Economic Research Working Paper: 2185; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 824, 825, 811, 512, 513. **KW** Hiring Practices. Recruitment. Screening Procedure. Workers. Productivity. Search Model.

AB This paper presents an economic analysis of recruitment and screening procedures chosen by firms as they hire new workers. After reviewing the relevant literature within the labor economics and human resources fields, I outline an employer search model in which firms choose hiring procedures as well as reservation productivity levels. The outcomes determined by these choices (e.g., expected vacancy durations, expected worker productivity and characteristics, and total resources devoted to hiring) are considered as well. I then present some empirical evidence on the determinants and outcomes of hiring procedures from a survey of firms. Among other things, the results show some evidence of higher productivity and lower turnover among those hired through referrals from current employees. Total time spent on hiring when using these referrals is also shown to be lower than when other methods are used. However, those hired through these referrals are less likely to be young or female than are those hired through other methods. The implications of these findings for "efficiency" and "equity" considerations are then discussed.

Hooper, Peter

TI The U. S. External Deficit in the 1980's: An Empirical Analysis. **AU** Helkie, William L.; Hooper, Peter.

Horvat, Branko

PD January 1987. **TI** The Choice of Techniques within the Framework of the Labour Theory of Prices. **AA** University of Zagreb. **SR** University of Southern California Modelling Research Group Working Paper: M8703; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 43. **PR** No Charge. **JE** 021, 022. **KW** Labor Theory of Prices. Capital Theory. Switch Points.

AB Some of the hotly debated issues in the theory of capital appear to be very naturally resolved within the framework of the labour theory of prices. In an economy with one consumer and one capital good, capital intensity is a decreasing function of the rental at the switch points, but may move in either direction between switch points. The Sraffian Case and the non-substitution theorem appear to be two special cases of a general wage-rental curve. Even in a perfectly competitive economy profits make for inefficient pricing because wrong technologies are chosen. Capital per worker -- Marx's organic composition -- makes full sense only if capital is evaluated at labour time prices, etc.

Hubbard, R. Glenn

PD February 1987. **TI** Finite Lifetimes, Borrowing Constraints, and Short-Run Fiscal Policy. **AU** Hubbard,

R. Glenn; Judd, Kenneth L. **AA** Hubbard: Department of Economics, Northwestern University. Judd: Hoover Institution, Stanford University. **SR** National Bureau of Economic Research Working Paper: 2158; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 322, 321, 311, 313, 023. **KW** Public Finance. Government Debt. Capital Markets. Fiscal Policy. Debt Burden.

AB Recent developments in public finance in the analysis of dynamic government debt policies have emphasized effects on the distribution of real resources across generations. At the same time, macroeconomists have emphasized the importance of the length of the time horizon over which agents optimize their decisions about consumption for judging the effects of fiscal policy on aggregate demand. Much of the discussion of these issues has focused on whether linkages among generations are sufficient to give consumers infinite horizons. To the extent that horizons are finite, debt burdens can be shifted to future generations, and substitutions of debt for taxes have real effects. This paper argues that, as a matter of quantitative significance, theoretical and empirical emphasis on the importance of finite horizons for the analysis of many fiscal policies is misplaced. Studies of the role of finite horizons in determining the effects of short-run fiscal policies on consumption have been conducted largely under the assumption of perfect capital markets. We show that while the marginal propensity to consume (MPC) out of temporary tax changes is nonzero in finite-horizon models, it is not very large. We demonstrate that the MPC is, however, quite sensitive to the importance of restrictions on borrowing in the economy. The clear implication is that shifting emphasis from the length of the planning horizon to the structure of capital markets is an important step for empirical research.

Huffman, Gregory

TI A Dynamic Equilibrium Model of Inflation and Unemployment. **AU** Greenwood, Jeremy; Huffman, Gregory.

Hughes-Hallett, Andrew J.

PD October 1986. **TI** Is Time Inconsistent Behaviour Really Possible? **AA** Department of Economics, The University, Newcastle-Upon-Tyne, NE1 7UR. **SR** Centre for Economic Policy Research Discussion Paper: 138; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 023, 311, 026. **KW** Policy Reoptimization. Time Inconsistency. Rational Expectations. Precommitment.

AB If private sector agents hold rational expectations, they will predict any future policy switches. Discounting the announced optimal policies, if they are not credible, will lead to a response which deprives the government of any incentive to renege on previous announcements and of the benefits of those announcements. Hence it is in the government's interest to offer a guarantee, forfeit on renegeing, to overcome that discounting. That rules out time inconsistent behaviour since either the guarantee is acceptable (i.e. it is worth more than the incentive to renege) or it is not in which case the government is forced

back onto the usual recursive (but time consistent) strategy. The time inconsistent solution is needed only to evaluate the required guarantee.

PD January 1987. **TI** Macroeconomic Policy Design with Incomplete Information: A New Argument for Coordinating Economic Policies. **AA** Department of Economics, University of Newcastle, Newcastle-upon-Tyne. **SR** Centre for Economic Policy Research Discussion Paper: 151; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 60. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 133, 023, 122, 420, 212. **KW** Policy Coordination. Robustness. Information Errors. Policy Regimes. Economic Policy.

AB The harshest criticism of econometrically based policy evaluation is undoubtedly the sensitivity of its conclusions to assumptions concerning the information available to policy-makers or to misspecification of the econometric models used in the evaluation. Economists appear to have accepted this criticism without examining how far it is justified and to what extent it can be overcome. These sensitivities can be broadly classified into those due to information errors (non-controllable shocks external to the economy, as modelled) and those due to modelling errors (errors caused by differences between the true structure of the economy and the specification of the econometric model). This paper considers the former case and studies the sensitivity of macroeconomic policy design to information errors in a multicountry setting. It argues that a policy regime of cooperation produces more robust policy designs than does non-cooperative policy-making, particularly when policy-makers exploit their freedom to revise their decisions in the light of past errors. The investigation involves some theoretical analysis and numerical sensitivity analysis using two different empirical models (extending work done earlier with Andries Brandsma) and complements a study by Hughes Hallett and Holtham on robustness and model errors (presented at an International Economic Association conference, organised by CEPR on Global Macroeconomics: Policy Conflict and Cooperation, February 1987).

Hui, Weng Tat

PD October 1986. **TI** State Dependence and Youth Unemployment in Australia: A Survival Analysis. **AA** Australian National University and National University of Singapore. **SR** Australian National University Working Paper in Economics and Econometrics: 138; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 43. **PR** No Charge. **JE** 212, 822, 824, 826. **KW** Survival Models. Duration Model. Youth Unemployment. State Dependence. Australia.

AB This paper presents a microeconomic analysis of labour market transition behaviour using survival modelling techniques and data from the Australian Longitudinal Survey. A search theoretic framework forms the basis for specification of the estimated models. Various aspects of the state dependence hypothesis including duration dependence, lagged duration dependence and occurrence dependence are tested and diagnostic checks for specification error are implemented. After corrections are made for random effects arising from unobserved

heterogeneity, the findings indicate that the experience of the typical unemployed youth in Australia is characterised by increasing hazard from unemployment. These results challenge the widely held view deduced mainly from aggregative analyses that the probability of leaving unemployment declines as the duration of unemployment lengthens.

Husseini, S. Y.

PD February 1987. **TI** Existence of Equilibrium with Incomplete Markets. **AU** Husseini, S. Y.; Lasry, J. M.; Magill, M. J. P. **AA** Husseini: University of Wisconsin. Lasry: University of Paris IX Dauphine. Magill: University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8708; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 37. **PR** No Charge. **JE** 021, 026, 213. **KW** General Equilibrium Theory. Fixed-Point Theorem. Incomplete Markets. Algebraic Topology.

AB This paper proves a new fixed-point theorem for establishing generic existence of equilibrium with incomplete markets. The theorem can be stated in two equivalent forms: first as a fixed-point theorem on the Grassmanian of k -dimensional subspaces of R^n ; second as a generalisation of the Borsuk-Ulam theorem. The proof relies on the methods of algebraic topology: geometrically existence follows from the global twisting in the fibres of a naturally induced vector bundle.

Illing, Gerhard

PD December 1986. **TI** The Optimum Quantity of Money and Asymmetric Information. **AA** University of Munich and University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 8701; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 30. **PR** No Charge. **JE** 311, 026, 023. **KW** Monetary Policy. Optimum Money Supply.

AB When households have a positive time preference, the holding of money entails a real cost. Often it is argued that this may be socially inefficient and that welfare could be increased by reducing the opportunity cost of holding money so as to avoid a wasteful economizing on holding cash. This idea is the basis for Milton Friedman's theory of an optimum quantity of money. According to Friedman (1969), the quantity of money is optimal when there is a real return on money equal to the rate of time preference. Friedman's theory is surprisingly wide accepted among laissez-faire economists even though it has the following implication: whereas the market system itself cannot achieve a first best equilibrium, so that money is needed as an additional institution, the government is supposed to have the ability to restore efficiency simply by using the governments power to tax in order to pay interest on money. The problem with Friedman's theory is that it is not based on a model which makes explicit why money is needed in the first place. A careful examination of his theory would require a precise description of reasons which prevent the market from performing its role (of achieving an efficient allocation) without money. This calls for an explicit modelling of some friction which makes it

impossible to achieve an Arrow-Debreu allocation. Such a "microfoundation" of money has to explain why certain contracts cannot be binding and thus are not enforceable. It should also provide exact conditions for feasible government interventions.

PD December 1986. TI The Optimum Quantity of Money and Asymmetric Information. AA Department of Economics, University of Munich and Department of Economics, University of Western Ontario. SR University of Western Ontario Department of Economics Research Report: 8701; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 30. PR \$5.00 Canada \$7.00 Elsewhere. JE 021, 026, 310. KW Optimum Quantity Theory. Verification Costs. Insurance Contracts. Money Contracts. Long-Term Contracts.

Ioannides, Yannis M.

TI Dynamic Aspects of Consumer Decisions in Housing Markets. AU Henderson, J. Vernon; Ioannides, Yannis M.

Israel, Ronen

TI Managerial Incentives and Financial Signaling in Product Market Competition. AU Glazer, Jacob; Israel, Ronen.

Janssen, P.

TI Strong Uniform Consistency Rates for Estimators of Conditional Functionals. AU Hardle, W.; Janssen, P.; Serfling, R.

Jing, Zhu Li

TI Incentive Effects of Price Rises and Payment-System Changes on Chinese Agricultural Productivity Growth. AU McMillan, John; Jing, Zhu Li; Whalley, John.

Johnsen, Thore

TI "On the Term Structure of Interest Rates". AU Donaldson, John B.; Johnsen, Thore; Mehra, Rajnish.

Johnson, Leland L.

PD November 1986. TI Excess Capacity in International Telecommunications: Poor Traffic Forecasting or What? AA Rand Corporation. SR Rand Note: N-2542-MF; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 43. PR No Charge. JE 611, 635, 613, 612, 621. KW Communications Satellites. Undersea Cable. Communication. Common Carriers. Regulatory Policy. Regulation.

AB Under international cooperative arrangements, governments and private firms have been remarkably successful in building worldwide systems of communications satellites and undersea cables. At the same time, the prospect of competitive entry by new firms offering satellite and cable services has triggered policy debate. Competition could foster new services and lower prices for some, while harming others. This Note examines the problem of excess capacity, which may grow because

large international facilities are under construction, and because new market entrants are planning to invest in systems that compete with those of the established carriers. In particular, the author considers three reasons that common carriers and others have invested in a seemingly wasteful manner: (1) overoptimistic traffic forecasts, (2) market structure and regulatory policy, and (3) inefficient pricing of circuits.

TI Compatibility Standards, Competition, and Innovation in the Broadcasting Industry. AU Besen, Stanley M.; Johnson, Leland L.

TI Compatibility Standards, Competition, and Innovation in the Broadcasting Industry -- Executive Summary. AU Besen, Stanley M.; Johnson, Leland L.

Johnson, Stephen

PD March 1987. TI Can People Compute? An Experimental Test of the Life Cycle Consumption Model. AU Johnson, Stephen; Kotlikoff, Laurence; Samuelson, William. AA Johnson: The Kennedy School of Government, Harvard University. Kotlikoff: National Bureau of Economic Research. Samuelson: School of Management, Boston University. SR National Bureau of Economic Research Working Paper: 2183; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 022, 023, 921. KW Life Cycle Hypothesis. Experiment. Rational Choice. Preferences. Consumption. Homotheticity. Time Separability.

AB This paper presents the results of an experimental study of the life cycle model in which subjects were asked to make preferred consumption choices under hypothetical life cycle economic conditions. The questions in the experiment are designed to test the model's assumption of rational choice and to elicit information about preferences. The subjects' responses suggest a widespread inability to make coherent and consistent consumption decisions. Errors in consumption decision-making appear to be very substantial and, in many cases, systematic. In addition, the experiment's data strongly reject the standard homothetic, time-separable life cycle model. The principal specific findings of the laboratory experiment are: (1) Subjects displayed significant inconsistencies in their consumption decisions; each of the subjects, in at least two pairs of economically identical situations, chose consumption values that differed by 20 percent or more. From the perspective of the standard life cycle model, error in decision-making accounts, on average, for roughly half of the variation in consumption. (2) A sizeable fraction of subjects undervalued future earnings relative to present assets; i.e., they systematically overdiscounted future earnings. (3) Almost all subjects exhibited oversaving behavior, apparently because they underestimated the power of compound interest. (4) The hypothesis that intertemporal consumption preferences are uniform across individuals is strongly rejected. Indeed, the demographic characteristics of subjects are significant determinants of consumption choice in the experiment.

Joshi, Heather

PD March 1987. TI Family Responsibilities and Pay Differentials: Evidence from Men and Women Born in

1946. **AU** Joshi, Heather; Newell, Marie Louise. **AA** Centre for Population Studies, London School of Hygiene and Tropical Medicine. **SR** Centre for Economic Policy Research Discussion Paper: 157; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 33. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 917, 824, 822, 841, 851. **KW** Female Earnings. Family Responsibilities. Marital Status. Equal Opportunities. Childbearing. Maternal Responsibilities. Wage Differential. Salaries. Wages. **AB** The MRC's survey of the 1946 birth cohort recorded hourly pay at ages 26 and 32. Among those men employed, pay varied not only by the sex of the recipient but also by the existence of family responsibilities. Among women, employed mothers received lower average pay than women without children. Regression analysis (allowing for possible selection bias among females surveyed) suggests that this is attributable to other variables - lower qualifications, interrupted employment records and different types of job (arguably reflecting their lower bargaining power in the labour market). The same factors also account for the smaller margin between the pay of single and married women. The pay of married men significantly exceeded that of bachelors, but there was no apparent difference between the earnings of fathers and those of other male employees. The possibility that the higher pay of married men reflects selection processes in the marriage market is discussed but not strongly supported. The pay gap between mothers and other childless women represented over 30 per cent of mothers' average pay. Our analysis suggests that about 15 per cent (or up to half the gap) was a consequence of women's maternal responsibilities. The unexplained gap between childless women and men was somewhat greater. The compounding effects of labour market discrimination and the unequal division of family responsibilities between men and women imply that the goal of equal opportunities for women requires measures which act on both fronts.

Judd, Kenneth L.

TI Finite Lifetimes, Borrowing Constraints, and Short-Run Fiscal Policy. **AU** Hubbard, R. Glenn; Judd, Kenneth L.

Kahn, James A.

PD March 1987. **TI** Social Security, Liquidity, and Early Retirement. **AA** University of Rochester. **SR** University of Rochester Center for Economic Research Working Paper: 74; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 40. **PR** No Charge. **JE** 915, 820, 322, 323. **KW** Retirement. Social Security. **AB** This paper investigates the effect of Social Security on the decision to retire at age 62. I argue that it is important to take realistic account of how recipients evaluate potential benefit flows. If individuals face liquidity constraints, for example, and therefore use a relatively high discount rate in evaluating future benefits, then Social Security actually discourages continued work (on average). Using data on individual retirement decisions, I find support for the argument that this phenomenon is responsible for at least some of the

increased incidence of early retirement.

Kalman, R. E.

TI The Prejudices of Least Squares, Principal Components and Common Factor Schemes. **AU** Los, Cornelis A.; Kalman, R. E.

Kamara, Avraham

PD November 1986. **TI** Liquidity Risk and the Information Content of Treasury Bill Futures and Forward Rates. **AU** Kamara, Avraham; Lawrence, Colin. **AA** Kamara: Department of Finance, University of Washington. Lawrence: Graduate School of Business, Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-35; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 35. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations. **JE** 313, 131, 132, 311. **KW** Arbitrage Profits. T-Bill Futures. Forward Rates. Liquidity Premium. Futures Markets. Forward Contracts. **AB** Recent studies interpret arbitrage profits between Treasury bill futures and forward contracts as futures' inefficiency. We establish that there exists a significant time varying liquidity premium in forward relative to futures rates, over the period 1976-1984. This premium differential reflects the differences in structural organization of the markets. Moreover, futures rates exhibit superior forecasting ability over the forward rates and are at least as accurate as macroeconomic models. These findings are inconsistent with the interpretation of the forward-futures spread as inefficiencies in either market. Furthermore, the findings demonstrate that the futures market performs an important social benefit.

Kaminsky, Graciela Laura

PD June 1986. **TI** Sticky Prices, Capital Controls and the Dual Exchange Rate: Some Welfare Results. **AA** Department of Economics, University of California, San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 87-4; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PR** \$2.00; checks payable to University of California Regents. **JE** 431, 432, 441. **KW** Capital Controls. Exchange Rates. Dual Exchange Rate Regimes. **AB** There is a vast literature in international economics concerning the choice among alternative exchange rate regimes. In particular it is analyzed that in the absence of imperfections and in the presence of self-fulfilling expectations both flexible and fixed exchange rates are equally efficient. Instead the dual exchange rate system is Pareto inferior to freely floating exchange rates. In this paper we extend the models in the literature to an uncertain environment. Furthermore, we also assume short run price rigidity. We show that uncertainty and the lack of complete markets open channels through which dual exchange rates might be preferable to floating exchange rates. We also obtain that the choice between exchange rate regimes cannot simply be related to the source of the disturbance, it should also be related to other parameters, such as the structure of preferences of the private sector.

Kamiya, Kazuya

PD November 1986. **TI** Computation of Equilibria in an Economy with Increasing Returns to Scale Technologies. **AA** Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8648; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 17. **PR** No Charge. **JE** 021, 022. **KW** Tax. Pricing Rules. Nonconvex Technologies. Fixed Points. Competitive Equilibrium.

AB In Kamiya (1986), I proved the existence of equilibria in an economy with increasing returns to scale technologies. The purpose of this paper is to show that this method of proving existence is well suited to a computational interpretation. The advantage of the approach is that one can investigate not only the effects of tax changes but also the effects of changing pricing rules.

PD November 1986. **TI** On the Survival Assumption in Marginal Cost Pricing. **AA** Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8638; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 17. **PR** No Charge. **JE** 022, 021. **KW** Firm Survival. Marginal Cost Pricing Equilibria.

AB The purpose of this paper is to show that marginal cost pricing equilibria need not exist without the survival assumption.

Kanbur, S. M. Ravi

PD April 1986. **TI** Intergenerational Mobility and Dynastic Inequality. **AU** Kanbur, S. M. Ravi; Stiglitz, Joseph E. **AA** Kanbur: Department of Economics, University of Essex. Stiglitz: Department of Economics, Princeton University. **SR** Princeton Econometric Research Program Memorandum: 324; Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 30. **PR** \$2.00. **JE** 022, 024. **KW** Mobility. Dynastic Inequality. Welfare Functions. Social Welfare. Income Distribution.

AB This paper is a contribution to the comparison of mobility in a social welfare framework. In particular, we emphasize the consequences of alternative mobility structures for dynastic inequality. This means that we consider social welfare functions which are not simply additive across dynastic welfare. We derive a necessary and sufficient characterization of social welfare dominance in this framework, and relate the implied partial ordering of mobility structures to several conventional views on what constitutes a more mobile society.

PD September 1986. **TI** Structural Adjustment, Macroeconomic Adjustment and Poverty: A Methodology for Analysis. **AA** Department of Economics, University of Essex, London, England and Woodrow Wilson School, Princeton University, United States of America. **SR** Centre for Economic Policy Research Discussion Paper: 132; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies,

libraries, institutions. **JE** 110, 121, 914, 411, 421, 422, 431, 921. **KW** Poverty. Structural Adjustment. Macroeconomic Adjustment. Income Distribution.

AB The object of this paper is to set out a methodology for analysing the impact on the poor in less developed countries of adjustment to disturbances arising in the international sectors of these economies. The methodology is not based on a detailed general equilibrium model of the whole economy, but instead focuses on the effects of the adjustment process on the sectoral composition of national output and expenditure. The paper provides a framework for the calculation of quantitative estimates of the impact of adjustment on poverty using household income and expenditure surveys currently available in LDCs. It proposes the use of decomposable poverty indices as a tractable vehicle for calculating the impact of adjustment on overall poverty. This framework does require, however, reasonably disaggregated data on income distribution.

Kannan, Ravi

PD January 1987. **TI** Algorithmic Geometry of Numbers. **AA** Carnegie-Mellon University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 87453-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 48. **PR** No Charge. **JE** 213. **KW** Combinatorial Problems. Polynomial Time Algorithm. Solid Geometry. Algorithmic Geometry of Numbers.

AB In addition to the applications to algorithms, Algorithmic Geometry of Numbers has sparked a study of mathematical structure in pure Geometry Numbers from a somewhat newer perspective, where sharper bounds (especially polynomial ones as opposed to super polynomial bounds) are sought. The very recent origin of the subject makes it difficult to assert at this point that the mathematics, or the algorithms, will have as pervasive an influence as the more established fields like say linear programming or the theory of NP-completeness; but there is evidence that the influence of the new subject will be substantial. The recent origin, however, gives us the advantage of being able to present a fairly self-contained introduction to the classical mathematics as well as to the algorithms in the subject and survey applications to cryptography, diophantine approximation, approximation of linear inequalities, factorization of polynomials among others. The attempt here has been to present nearly complete intuitive idea of various results from which the interested reader can work out the details rigorously. The ideas of Lenstra's integer programming algorithm and Lovasz's basis reduction algorithm are explained in full. Briefer descriptions of several other results are given.

Keeler, Emmett B.

PD October 1986. **TI** The Demand for Episodes of Mental Health Services. **AU** Keeler, Emmett B.; Wells, Kenneth B.; Manning, Willard G.; Rumpel, J. David; Hanley, Janet M. **AA** Rand Corporation. **SR** Rand Report: R-3432-NIMH; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. **PG** 212. **PR** No Charge. **JE** 913. **KW** Mental Health Care. Health Insurance. Cost Sharing. Coinsurance. **AB** Using data from the RAND Health Insurance

Experiment, this report examines expenditures for mental health services to see whether demand for mental health services is more responsive to varying cost sharing, than is the demand for medical services. Among their findings, the authors conclude that (1) the use of outpatient mental health care is responsive to cost sharing but not as responsive as most observational studies have indicated; (2) economic considerations seem to play a larger role in decisions to buy mental care than to buy medical care; (3) coinsurance sharply reduces the number of episodes of treatment but has only a small effect on the duration and intensity of use within an episode; (4) outpatient treatment is very persistent; (5) those with multiple episodes of treatment in a year spend more on average than those with one; and (6) anxiety, depression, and emotional instability have separate effects on use, but levels of psychological well-being have little effect.

Kern, Walter

PD March 1986. **TI** On the Rate of Convergence of Some Stochastic Processes. **AA** University of Cologne. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86/26; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 8. **PR** No Charge. **JE** 213. **KW** Convergence. Stochastic Processes. **AB** This paper describes certain stochastic processes which have an exponential rate of convergence. An application strengthens a previous result of Steele.

PD March 1986. **TI** On the Rate of Convergence of Some Stochastic Processes. **AA** University of Cologne. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 85/26; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 8. **PR** No Charge. **JE** 213. **KW** Random Variables. Stochastic Process. Rate of Convergence.

AB The paper shows convergence for certain stochastic processes of real vector valued independent identically distributed random variables. The study strengthens a previous result of Steele.

PD May 1986. **TI** A Probabilistic Analysis of the Switching Algorithm for the Euclidean TSP. **AA** University of Cologne. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86/28; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 8. **PR** No Charge. **JE** 213. **KW** Switching Algorithm. Euclidean Travelling Salesman Problem.

AB The well known switching algorithm proposed by Lin and Kernigham for the Euclidean Travelling Salesman Problem has proved to be a simple efficient algorithm for medium size problems (though it often gets trapped in local optima). Although its complexity status is still open, it has been observed to be polynomially bounded in practice, when applied to uniformly distributed points in the unit square. In this paper this polynomial behaviour is derived theoretically (However, we will come up with a bound of $(n \text{ to the } 18\text{th power})$ with probability $1 - c/n$, whereas in practice the algorithm works slightly better).

PD August 1986. **TI** On a Problem About Covering Lines by Squares. **AU** Kern, Walter; Wanka, Alfred.

AA University of Cologne. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86/31; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 8. **PR** No Charge. **JE** 213. **KW** Line Cover. Related LP-Relaxation. Unit Squares. Linear Programming.

AB Let S be the square of '0,n of side length n element of N and let $S = \{S_1, \dots, S_t\}$ be a set of unit squares lying inside S , whose sides are parallel to those of S . S is called a line cover, if every line intersecting S also intersects some S_i element of S . Let $\tau(n)$ denote the minimum cardinality of a line cover, and let $\tau'(n)$ be defined in the same way, except that we restrict our attention to lines which are parallel to either one of the axes or one of the diagonals of S . It has been conjectured by L. F. Toth that $\tau(n) = 2n + 0(1)$ and by I. Barany and Z. Furedi that $\tau(n) = (3/2)n + 0(1)$. We will prove that, instead, $\tau(n) = (4/3)n + 0(1)$, and as to Toth's conjecture, we will exhibit a "non integer" solution to a related LP-relaxation, which has size equal to $(3/2)n + 0(1)$.

PD August 1986. **TI** On the Depth of Combinatorial Optimization Problems. **AA** University of Cologne. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86/33; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 12. **PR** No Charge. **JE** 213. **KW** Hill Climbing. Depth. Computational Complexity. Simulated Annealing.

AB Consider a discrete optimization problem $\max \{c(x): x \text{ element of } X\}$. Usually hill climbing algorithms work as follows: First, a neighbourhood structure has to be specified on X . Then, starting from an arbitrary solution, say X_0 , one constructs a sequence X_0, X_1, X_2, \dots (hopefully leading to an optimum) such that X_i is a neighbour of X_{i-1} for all i . For X_0 element of X , the depth $d(X_0)$ is defined to be the smallest $d \geq 0$ such that there exists a sequence X_0, X_1, \dots, X_n with $c(X_n) > c(X_0)$ and all intermediate solutions X_i having objective value $c(X_i) \geq c(X_0) - d$. The depth of the problem is defined to be the maximum depth of a solution X_0 element of X . This notion plays an important role in the theory of Simulated Annealing. Here we want to show that the depth is of some interest in its own right. We will prove some upper bounds and investigate the computational complexity of the depth function for some selected examples.

Kierzkowski, Henryk

TI Goods, Services and Trade. **AU** Djajic, Slobodan; Kierzkowski, Henryk.

Klein, Roger

PD February 1987. **TI** Factors Affecting the Output and Quit Propensities of Production Workers. **AU** Klein, Roger; Spady, Richard; Weiss, Andrew. **AA** Bell Communications Research, Incorporated. **SR** Bell Communications Research Incorporated Economics Discussion Paper: 27; Room, Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. **PG** 42. **PR** No Charge. **JE** 824, 825, 212. **KW** Productivity. Quit Rates. Education. Model Specification Tests. Wages.

AB We have used a proprietary data set of newly hired

semi-skilled production workers at one location of a large unionized firm to investigate several issues in labor economics. This data set is unique in several respects: the workers in our sample faced the same wage schedules, had the same promotional opportunities, the same job tenure (zero), similar working conditions, and had jobs for which we were able to record their physical output. We analyze these data by formulating a simultaneous equation model to explain wages, output, education, and a worker's quit decision. The model is estimated by maximum likelihood and subjected to a variety of specification tests. Such tests include a comparison of the standard error estimates that form the basis for White's information test, and White's version of a Hausman specification test.

PD March 1987. **TI** Factors Affecting the Output and Quit Propensities of Production Workers. **AU** Klein, Roger; Spady, Richard; Weiss, Andrew. **AA** Bell Communications Research. **SR** National Bureau of Economic Research Working Paper: 2184; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 824, 825, 826. **KW** Production. Quit Rates. Labor Productivity. Semi-Skilled Labor. Wages.

AB We have used a proprietary data set of newly hired semi-skilled production workers at one location of a large unionized firm to investigate several issues in labor economics. This data set is unique in several respects: the workers in our sample faced the same wage schedules, had the same promotional opportunities, the same job tenure (zero), similar working conditions, and had jobs for which we were able to record their physical output. We analyze these data by formulating a simultaneous equation model to explain wages, output, education, and a worker's quit decision. The model is estimated by maximum likelihood and subjected to a variety of specification tests. Such tests include a comparison of the standard error estimates that form the basis for White's information test, and White's version of a Hausman specification test. Our principal findings are: 1. Individuals that choose more education than we would expect from their observed characteristics have lower than expected quit propensities. We argue that this low quit propensity is one of the unmeasured (and unobserved) attributes that sorting models posit are correlated with education and hence distort the usual estimates of rates of return to education. 2. The performance of non-whites in our sample was no lower than that of whites. However, on their previous jobs non-whites received lower wages than did whites. 3. The output per hour of males in our sample was higher than that of females; however, we were unable to conclude from our data whether these productivity differences could explain the higher wages received by men on their previous jobs. Moreover, this output difference may be transitory and may diminish with on-the-job learning. 4. The expected value of alternative wages had a positive (but not statistically very significant) effect on quit rates. Workers with better alternative opportunities were more likely to quit (all workers had the same opportunities on their current job). 5. Finally we found that workers with high output levels were more likely to quit than were workers with average output levels.

Kletzer, Kenneth

PD October 1986. **TI** Credit Markets and Patterns of International Trade. **AU** Kletzer, Kenneth; Bardhan, Pranab. **AA** Kletzer: Yale University. Bardhan: University of California at Berkeley. **SR** University of California at Berkeley Department of Economics Working Paper: 8612; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley CA 94720. **PG** 30. **PR** \$3.50. **JE** 411, 023, 313, 431. **KW** Sovereign Risk. Bankruptcy Laws. Moral Hazard. Credit Market Imperfections. Contract Enforcement.

AB Even with identical technology or endowments between countries comparative costs may differ in a world of credit market imperfection. We have explored two kinds of such imperfection, one involving moral hazard considerations in the international credit market under sovereign risk and the other involving differences between countries in their domestic institutions of credit contract enforcement under incomplete information.

Korosi, Gabor

PD November 1986. **TI** A Comparison of LISREL and PLS Estimation. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-57; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 17. **PR** No Charge. **JE** 211. **KW** Latent Variable Model. Monte Carlo Experiments. Estimation Concepts. Latent Variable Model. Non-Observable Variables. MLE.

AB Economic theories, models often use non-observable variables. Several estimating techniques have been developed for different latent variable models. This paper compares the properties of two alternative estimation techniques for latent variable models by Monte Carlo experiments. LISREL is a maximum likelihood estimation method, while PLS is based on least squares principle.

Kotlikoff, Laurence

TI Can People Compute? An Experimental Test of the Life Cycle Consumption Model. **AU** Johnson, Stephen; Kotlikoff, Laurence; Samuelson, William.

PD May 1987. **TI** Intergenerational Transfers and Savings. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2237; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 023, 921. **KW** Wealth Accumulation. Retirement. Life Cycle Model. Bequests. Intergenerational Altruism. Insurance.

AB In recent years the role of intergenerational transfers in the process of wealth accumulation has been the subject of substantial empirical and theoretical analysis. The key question stimulating this research is what is the main explanation for savings? Is it primarily accumulation for retirement as claimed by Albert Ando, Richard Brumberg, and Franco Modigliani in their celebrated Life Cycle Model of Savings? Is it primarily intentional accumulation for intergenerational transfers? Or is it primarily precautionary savings, much of which may be bequeathed because of imperfections in annuity markets? This paper examines a range of findings on the importance of intergenerational transfers. The strong conclusion that

emerges from this evidence is that intergenerational transfers play a very important, if not a key, role in aggregate wealth accumulation. While intergenerational transfers figure very large in savings, the precise motivation for such transfers is unclear. Intergenerational altruism might appear the most likely candidate, but at least some stylized facts, such as the equal allocation of bequests among children, are strongly at odds with the altruism model. Other explanations involving imperfect insurance arrangements or payments for child services do not appear capable of explaining the substantial amounts of transfers actually observed. Sorting out the relative contributions of different models to intergenerational transfers and the precise role of intergenerational transfers in the process of wealth accumulation remains an intriguing and exciting enterprise.

Kotowitz, Y.

TI Econometric Contests with Endogenous Monitoring.
 AU Berkowitz, M. K.; Kotowitz, Y.

Krehbiel, Keith

TI Collective Decision-Making and Standing Committees: An Informational Rationale for Restrictive Amendment Procedures. AU Gilligan, Thomas W.; Krehbiel, Keith.

Krelle, Wilhelm

PD 1985. TI The State of the Bonn-IIASA Research Project. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-23; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 21. PR No Charge. JE 123, 111, 212, 132. KW Structural Change. Economic Growth. World Model. Multicountry Model.

AB From the beginning of the seventies till now the World economy was subject to substantial change: East Asia emerged as a new center of production and world trade, the oil producing countries succeeded in realizing substantial gains in the terms of trade, the growth rates of industrialized countries in East and West declined, some newly industrialized countries started to compete with the old ones, some sectors of production declined or changed their location, others appeared on the scene and so on. In 1984 IASA decided to take up the problem of economic growth and structural change on the world level. I drafted a preliminary research plan ("The IASA Research Program - Economic Growth and Structural Change", March 1984). A IASA conference was held in Laxenburg, Austria, May 14-16, 1984, where representatives of research groups working in this field from the most important countries participated. This conference should initiate and coordinate these research efforts. Though this conference was a success and many research groups were willing to collaborate, the research project could not start due to unforeseen financial problems. Thus it was decided to join forces with Bonn University. I got financial support from different German sources. Thus the project could be started in a reduced form in the beginning of 1985 at Bonn University and at Laxenburg. It comprises three parts: 1. The analysis and forecast of structural change on the world level by means of an econometric world model.

This research is carried out in collaboration of a central research group at Bonn University and special research groups in the most important countries and international organizations. The central group is financed jointly by IASA and by German research funds and consists (besides myself) of five scientists from different countries. They will report on their work at this conference. 2. The statistical and econometric identification of structural change. From the econometric point of view structural change means change of the parameters of an econometric system. How could these changes be identified from the observed time series? This problem is taken up by a group of statisticians and econometricians under the leadership of Professor Hackl in Laxenburg. This group had already its workshop from May 23 - 24, 1985 at Lodz, Poland. 3. Structural change on the commodity markets. This project is only carried out by individual scholars for some specific commodities. There is no definite organization of this type of research, but hopefully we shall get some results at the end of next year. This workshop is devoted to part One of the total project: analysis and forecast of structural change. The central group shall present preliminary results mostly in the range of analysis. We want to strengthen and (in some cases) initiate the collaboration with the country groups. Another workshop of this type is planned for early summer 1986 in order to coordinate the ideas on the forecast of the driving forces of economic development. A final conference comprising all three parts of the project should be held at the end of 1986 where all groups and individual scholars present their results in the form of chapters of a common IASA book (or several books) on economic growth and structural change which should be published in the middle of 1987. This is the general plan. Hopefully it can be carried out in time.

PD 1985. TI Long-term Fluctuations of Technical Progress and Growth. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-22; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 38. PR No Charge. JE 111, 131, 122, 132, 212. KW Economic Growth. Technical Progress. Kondratieff Long Wave.

AB Declining growth rates of GDP or NMP in the developed countries in East and West characterized the economic development in the 70's. Figures 1 and 2 illustrate this fact. They show the growth rates of real GDP (five-year averages) for the United States, the Federal Republic of Germany, Japan and all OECD countries and for the USSR and the CMEA countries, respectively. Is this a sign of the "end of the historical epoch of capitalism" (Marx, 1894, ch. 15)? From this point of view it seems strange that the socialist systems suffer from the same disease. Or is it a sign of "secular stagnation" (Alvin Hansen, 1938), of a "decline of nations" (Olson, 1982), of another "stage" of economic growth (Rostow, 1960, 1975), of the "Decay of the West" (Spengler, 1919), of a lack of response to the requirements of the natural, social and political environment of a society (Toynbee, 1947) or of the Kondratieff long wave (Kondratieff, 1926)? Looking at historical statistics we see that phases of declining growth have been experienced before (figure 3). But these waves are superimposed by the

effects of exogenous events (wars, the decline of the British Empire etc.) and not easily confirmed due to a lack (or unreliability) of statistical data in the 18th and 19th century. Recent results of Kleinknecht (1984) show that at least the last three Kondratieff cycles may be identified for some countries, see table 1. Of course, disturbing influences of external forces are visible also. In the United States and Germany the first downswing (B: 1873 - 1893) does not appear. The upswing continues instead, perhaps due to positive effects of victorious wars (the Civil War in the United States and the 1870/71 German-French war in Germany). For Great Britain the signs of rising competition for the British Empire are visible in the period 1893 - 1913: the downswing of 1873 - 1893 continues. But otherwise the Kondratieff phases come out clearly (also for other countries which are not reproduced here). The hypothesis maintained in this paper is that there are long waves in economic activity and that we experience a downswing in this wave during the seventies and the beginning of the eighties. Our problem is to explain this wave.

PD 1985. TI Forecast of the West German Economic Development till 1999. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-24; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 16. PR No Charge. JE 132, 212, 111, 122. KW Structural Change. Economic Growth. Germany. Macroeconomic Model. Forecast. World Model.

AB The joint Bonn-IIASA Research Project on Economic Growth and Structural Change depends on the cooperation between country groups working in the field of analysis and forecast of growth and structural change of their country and the Central Group of the Project. In the case of the FRG these two groups partly coincide: the so called Bonn Model 11 on which the following forecasts are based has been developed by Dipl.-Volksw. H.T. Sarrasin in connection with W. Krelle. The Bonn Model 11 emerged out of a long series of earlier models, called Bonn Model 1,.,10. The majority of these models are published and their forecasting performance has been checked, see (e.g.) W. Krelle, *Ökonomische Prognose-, Entscheidungs- und Gleichgewichtsmodelle an der Universität Bonn, 1970-1984*, to be published 1986. Thus the forecasts may deserve at least some confidence - of course, under the condition that the exogenous variables develop in the assumed way. All forecasts are conditional forecasts, no prophecies. The Bonn Model 11 The model consists of about 480 equations, thereof about 150 behavior equations. It is a yearly model constructed to deliver medium term forecasts. Table 1 indicates the submodels and the number of definitional and stochastic equations within these submodels. The table shows that the model emphasizes the government sector and the social insurance system. The administrative regulations are modelled in detail, following the administrative laws and rules of behavior. The model as it stands now is a pure economic one in the sense, that political decisions are taken as exogenous as well as the variables describing the world economy.

PD 1985. TI Die Wirtschaftswissenschaften an der Universität Bonn, Geschichte des Wirtschaftswissenschaftlichen Fachbereichs der Rechts- und

Staatswissenschaftlichen Fakultät. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-13; sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 18. PR No Charge. JE 031.

PD 1985. TI Wechselkursbestimmung bei Interdependenten Volkswirtschaften. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-16; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 39. PR No Charge. JE 211, 421, 431, 441, 132. KW Interdependent Economies.

PD 1985. TI Heinrich Freiherr von Stackelberg. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-17; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 5. PR No Charge. JE 031. KW Stackelberg. Economist. Biography.

AB A short biography of Heinrich Freiherr von Stackelberg.

PD 1985. TI The First Approximation of the World Model. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-19; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 9. PR No Charge. JE 132, 111, 211, 431. KW World Econometric Model. Multicountry Model. World Model.

AB Since it will take more time to implement the World Model as suggested in "The World model in Detail", 2nd version, May 1985, it is necessary to get a preliminary version of the model running as soon as possible. This requires a certain order of the work and a certain simplification which will be corrected later. The first approximation of the World Model consists of the real parts of the model with only those monetary parts which are indispensable for the functioning of the real part. The sectoral breakdown is only considered as to the domestic production of the countries, not with respect to exports and imports. This simplified world model should be tried out first. After it is running, the other parts of the original research plan will be implemented. In the following this simplified model is presented.

PD 1985. TI Economic Structural Change. The Bonn IIASA Research Project: Theoretical Background and Actual State. AU Krelle, W.; Dobrinsky, R.; Gajda, J.; Ross, H.; Szekely, I.; Welsch, H. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: B-15; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 47. PR No Charge. JE 132, 111, 121, 211, 421, 431. KW Economic Structural Change. World Econometric Model. Multicountry Model. World Model.

AB The last decade was and the next decades will still be periods of substantial structural economic change: newly industrialized nations emerged, East Asia became one of the leading economic centers, new products and new production technologies appeared, energy and

environmental problems came to the fore and unemployment and short and long term cycles were much in evidence. Thus IIASA decided to look into the problems of structural change and long term fluctuations. Since February of this year a joint Bonn-IIASA research group has been established at Bonn University which in collaboration with research groups in the most important industrialized countries - should analyse and forecast economic structural change on the world level. This paper outlines the theoretical background and shows how longterm fluctuations may arise. Afterwards the Bonn-IIASA-Research project is presented in detail and some preliminary results are given. Before to embark on a rather complicated, disaggregated world model it is advisable to start with a highly aggregated, simplified model which gives the basic results which should be preserved also in the more sophisticated systems. Thus we start with a 2-country growth model and analyse the equilibrium growth path. The changes of the determinants of this growth path will give us the main determinants of structural change.

PD August 1986. TI Operations Research - Ruckblick und einige Gedanken zur Weiterentwicklung. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-72; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 22. PR No Charge. JE 031. KW Operations Research.

AB A short history of operations research (in German).

PD December 1986. TI Jean - Baptiste Say. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-76; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 20. PR No Charge. JE 031. KW Biography.

AB A biography of the economist, Jean-Baptiste Say (in German).

Kreps, David M.

TI Reputation and Multiple Opponents I: Identical Entrants. AU Fudenberg, Drew; Kreps, David M.

Krishna, Kala

PD March 1987. TI High Tech Trade Policy. AA Department of Economics, Harvard University. SR National Bureau of Economic Research Working Paper: 2182; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 421, 422, 411, 431. KW Trade Policy. Network Externalities. Expectations. Complementary Goods. GATT.

AB This paper analyzes the role of network externalities and expectations about them in the formulation of trade policy. Their effects are studied in duopoly situations when products are compatible and when they are incompatible and when multimarket effects are possible. Network externalities and expectations regarding the size of the network affect optimal trade policy in three ways. First, the presence of expectations effects creates a role for policy if there are differences between the way the externalities operate and expectations about how they

operate. Second, when goods are compatible, the existence of network externalities can make goods complementary which reverses the direction of optimal policy. Third, since multimarket effects occur naturally with network externalities and compatible products, purely domestic policies, which are legal under GATT, can have international profit shifting effects which may be in the national interest.

Krueger, Anne O.

PD March 1987. TI The Importance of Economic Policy in Development: Contrasts Between Korea and Turkey. AA Department of Economics, Duke University. SR National Bureau of Economic Research Working Paper: 2195; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 111, 112, 121, 045. KW Korea. Turkey. Economic Growth. Savings Rate. Gross National Product.

AB In the mid-1950's, Turkey was a much richer country than Korea. With about the same population, Turkish Gross National Product was about three times that of Korea, Turkish exports were fifteen times those of Korea, and the Turkish savings rate was much higher than Korean. By 1980, the situation was dramatically reversed, as Turkish income was 40 percent below Korea's, Turkish exports were less than one-fourth those of Korea and the Turkish savings rate was about two-thirds of Korea's. This paper examines the variables that affected economic growth and shows the critical importance of the different policy choices in the two countries.

Kumbhakar, Subal

TI Methodological Issues in the Evaluation of CETA Programs: Endogenous Participation, Completion and Program Assignment. AU Lillard, Lee A.; Kumbhakar, Subal.

Kuran, Timur

PD March 1987. TI Preference Falsification, Policy Continuity and Collective Conservatism. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8711; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 38. PR No Charge. JE 025, 112, 121. KW Institutions. Public Choice. Social Change. Rigidity. Conservatism. Beliefs. India. Caste System. Private Preferences. Public Preferences.

AB Through a model that distinguishes between privately held and publicly declared preferences, and between private and public beliefs, this paper explains why a society might cling to its past choices. All four variables are endogenous to the model. Following the introduction of a measure of collective conservatism, the paper turns to the determinants and consequences of feedback from society's choices to its members' private beliefs and preferences. The theory is applied to the persistence of India's caste system to explain why the lowest castes have been among the system's most committed supporters.

Ladd, Helen F.

TI City Taxes and Property Tax Bases.

AU Bradbury, Katharine L.; Ladd, Helen F.

Lambert, Jean Paul

PD October 1986. TI Conflicting Specifications for Investment Functions in Rationing Models: A Reconciliation. AA Centre for Operations Research and Econometrics, Universite Catholique de Louvain and Universite Catholique de Lille. SR Universite Catholique de Louvain CORE Discussion Paper: 8629; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 12. PR No Charge. JE 023, 522, 111, 212. KW Investment Behavior. Specification.

AB In this paper, we discuss some of the specifications recently proposed in the literature for investment behaviour in rationing models. After pointing to an inconsistent practice common in the available empirical works, we focus on two specifications among the most attractive ones proposed recently and explain why they are incompatible with each other. We then show what is the correction to be brought in order both to restore compatibility and preserve a type of specification aiming at making the best use of available information.

PD January 1987. TI Investment in a Disequilibrium Context or Does Profitability Really Matter? AU Lambert, Jean Paul; Mulkay, Benoit. AA Lambert: Facultes Universitaires Saint-Louis, Brussels and Centre for Operations Research and Econometrics. Mulkay: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8703; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 28. PR No Charge. JE 022, 023, 611, 631. KW Stochastic Rationing. Profitability. Manufacturing. Belgium. Uncertain Demand.

AB This paper examines, both theoretically and empirically, the investment behaviour of firms in a disequilibrium context. In this sense, it is to be regarded as a contribution to the progressive development of more appropriate macroeconomic disequilibrium models which are, up to now, essentially short-term models. The framework adopted here is that of stochastic rationing, in the sense that firms are faced with an uncertain demand. The theoretical analysis of the firm having to decide jointly on its optimal capacities and optimal technical coefficients allows to identify profitability as a prime long-run determinant of desired capacities. An empirical application conducted on the Belgian manufacturing sector supports the hypothesis of a strong role played by profitability developments, particularly in the last decade.

Landau, Henry

TI Validating Hiring Criteria. AU Weiss, Andrew; Landau, Henry.

Lang, Kevin

PD March 1987. TI Why Was There Mandatory Retirement? or the Impossibility of Efficient Bonding Contracts. AA Department of Economics, University of California, Irvine. SR National Bureau of Economic

Research Working Paper: 2199; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 821, 822, 824, 825. KW Hours Constraints. Mandatory Retirement. Worker Shirking. Efficient Labor Market Contract.

AB Lazear has argued that hours constraints, in general, and mandatory retirement, in particular, form part of an efficient labor market contract designed to increase output by inhibiting worker shirking. Since the contract is efficient, legislative interference is welfare reducing. However, in any case where bonding is costly, the hours constraints will not be chosen optimally. Although it is theoretically possible that bonding is costless, in this case the earnings profile is indeterminate and we should never observe monitoring aimed at reducing shirking. It therefore appears that bonding should be modelled as costly. If so, the role of policy depends on the source of bonding costs, the set of feasible contracts and the policy options which are available to government.

Lasry, J. M.

TI Existence of Equilibrium with Incomplete Markets. AU Husseini, S. Y.; Lasry, J. M.; Magill, M. J. P.

Lawrence, Colin

TI On the Ineffectiveness of Shifts in Government Policy. AU Gilles, Christian; Lawrence, Colin.

TI Liquidity Risk and the Information Content of Treasury Bill Futures and Forward Rates. AU Kamara, Avraham; Lawrence, Colin.

Lazear, Edward P.

PD February 1987. TI Lump-Sum Payments. AA University of Chicago and Hoover Institution, Stanford University. SR Stanford Hoover Institute Working Paper in Economics: E-87-8; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 32. PR No Charge. JE 830, 824, 821. KW Bonuses. Wages. Measurement of Compensation. Labor Compensation. Collective Bargaining Agreements.

AB Lump-sum payments have become a significant component of labor compensation, with 26 per cent of collective bargaining agreements in 1986 containing provisions for such payments. The importance of lump-sum payments creates conceptual and measurement issues for researchers who want to study labor supply and demand. Do lump-sum payments enter the calculations in the same way as wages? Should they be amortized over some longer period to obtain a corrected wage rate? Are they like fringe benefits? Does the amount that a worker accrues equal the amount that a firm pays? A general result is that the BLS should report lump-sums in the same way that pensions are reported. Additionally, accruals, the value relevant to workers and labor supply decisions, are understated by observed payments, the value relevant to firms and labor demand decisions. Finally, lump-sums should not be amortized over any period, but instead should be reported when they are paid.

Leclerc, Matthias

PD August 1986. TI Slices of the Matching

Polytopes. AA University of Cologne. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86/32; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 5. PR No Charge. JE 213. KW Matching Polytope. Edges. Slices. Exact Matching Problem.

AB In this paper we consider the following problem: Given a graph $G=(V, E)$, a subset R of E , and a positive integer l , determine a matching of G containing exactly l edges of R , or show that no such solution exists. This is equivalent to asking if the intersection of the matching polytope with the hyperplane $\sum X_{sub e} = l$ contains a point whose coordinates are all integral. This exact matching problem has numerous applications. These include busdriver scheduling, timetabelling, the analysis of biomedical images and the determination of the ground states of the Ising spin glass model for the two-dimensional case with periodic boundary conditions. Its computational complexity is unknown at present. We will prove an assertion, which treats a special case of the exact matching problem.

Ledyard, John O.

PD January 1987. TI Incentive Compatibility. AA Division of the Humanities and Social Sciences, California Institute of Technology. SR Caltech Social Science Working Paper: 622; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 11. PR No Charge. JE 011, 026. KW Incentive Compatibility. Game Theory. Implementation. Mechanism. Bayes. Nash. Revelation.

AB Incentive compatibility is described and discussed. A summary of the current state of understanding is provided.

PD January 1987. TI Market Failure. AA Division of the Humanities and Social Sciences California Institute of Technology. SR Caltech Social Science Working Paper: 623; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 7. PR No Charge. JE 011, 024, 021. KW Market Failure. Public Good. Externalities. Rational Expectations. Information Monopoly. Competitive Equilibrium.

AB Market failure is described and discussed. A summary of the current state of understanding is provided.

Leff, Nathaniel H.

PD August 1986. TI An Autonomous Growth Path for Latin America: Investment, Saving, and the Demand for Capital Imports. AU Leff, Nathaniel H.; Sato, Kazuo. AA Leff: Graduate School of Business, Columbia University. Sato: Department of Economics, Rutgers University. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-03; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 33. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 112, 431, 441, 130, 121. KW Latin America. Investment. Saving. Capital Flows. Economic Growth. Debt Crisis.

AB This paper considers a strategy for countries in Latin

America to achieve sustained medium-term economic growth despite the decline in capital inflow that has followed the external debt crisis. In order to assess the feasibility of the proposed expansion path, we estimate the parameters of investment and saving functions for a sample of 21 Latin American countries. The estimates suggest that the strategy would be feasible in approximately half the countries in the sample. We also discuss the implications of the saving and investment parameters for modeling the demand for capital imports in these countries.

PD November 1986. TI Trust, Envy, and the Political Economy of Industrial Development: Economic Groups in Developing Countries. AA Columbia University Graduate School of Business. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-38; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 32. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 112, 121, 851, 514, 026, 053. KW Trust. Political Economy. Industrial Development. Economic Groups. Multi-Enterprise Firms. LDC's.

AB In middle-income developing countries, economies of scale and scope imply that establishment of large firms will facilitate economic progress. Emergence and effective operation of such firms require a modicum of interpersonal trust. Unfortunately, in many developing countries, trust is not easily available, either via the market or as a public good. In this context, the economic Groups -- multi-enterprise firms akin to the Japanese zaibatsu -- present in the industrial sectors of many LDC's play a special role. Deriving from the same communal, ethnic, or tribal group, Group members have relatively low costs for obtaining information and enforcing sanctions in the event of non-compliance. Accordingly, Group members face special incentives that make for reliable and trustworthy behavior. The economic success of Group firms, however, incites envy on the part of those excluded. Moreover, for reasons discussed in the paper, the Groups generally fail to control their countries' political system. The conjunction of the Groups' economic success, social hostility, and political weakness leads to a special political-economic dynamic.

Leininger, Wolfgang

PD March 1987. TI The Sealed-bid Mechanism for Bargaining with Incomplete Information. AU Leininger, Wolfgang; Linhart, Peter B.; Radner, Roy. AA Leininger: University of Bonn. Linhart and Radner: AT&T Bell Laboratories, Murray Hill, New Jersey. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-95; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 59. PR No Charge. JE 026, 025. KW Game Theory. Bargaining. Incomplete Information. Sealed-Bid Mechanism. Transfer Price Problem.

AB From the point of view of the firm as a whole, an equilibrium of the sealed-bid game (with incomplete information) is efficient if trade occurs whenever the benefit exceeds the cost and does not occur when the cost exceeds the benefit. One can show that, if both of these

inequalities have positive probability, then no equilibrium of the sealed-bid game is efficient. Indeed, Myerson and Satterthwaite (1983) have shown that, under fairly general conditions, there is no bargaining mechanism whose equilibria can be guaranteed to be efficient. We shall concentrate most of our analysis on the special case in which the benefit and cost are independently and identically distributed, uniformly on the unit interval. For this case, Chatterjee and Samuelson (1983) demonstrated the existence of an equilibrium in which each player's bid is a linear function of his observation. Furthermore, Myerson and Satterthwaite (1983) showed that this equilibrium had the highest expected gains from trade of any equilibrium of any (suitably restricted) bargaining mechanism. In other words, the linear-strategy equilibrium of the sealed-bid mechanism is "second-best" (for the uniform prior distribution). We shall show (Section 3) that, for the uniform case, the sealed-bid game has a very large set of equilibria. In fact, not only is there a continuum of equilibria, but the set of equilibrium strategy-pairs has infinitely many degrees of freedom. Furthermore, the expected gains from trade for the set of equilibria range from second-best to zero]

Leonard, Jonathan S.

PD March 1987. TI Carrots and Sticks: Pay, Supervision and Turnover. AA School of Business, University of California, Berkeley. SR National Bureau of Economic Research Working Paper: 2176; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 824, 512, 513, 825. KW Wages. Efficiency Wage Model. Wage Differentials. Turnover. Self Supervision.

AB Large and persistent differences across industries in wages paid for given occupations have commonly been observed. Recently, the efficiency wage model (EWM) has been advanced as an explanation for these wage differentials. The shirking version of the EWM assumes a trade-off between self-supervision and external supervision. The turnover version assumes turnover is costly to the firm. Variation across firms in the cost of monitoring/shirking or turnover then are hypothesized to account for wage variation across firms for homogeneous workers. This paper presents empirical evidence of the trade-off of wage premiums for supervisory intensity and turnover. A new sample of 200 firms in one sector in one state in 1982 is analyzed. Little evidence is found to support either version of EWM. The substantial variation in wages for narrowly defined occupations across firms remains largely unexplained.

Lichtenberg, Erik

PD March 1987. TI The Welfare Economics of Regulation in Revenue-Supported Industries. AU Lichtenberg, Erik; Zilberman, David. AA Department of Agricultural and Resource Economics, University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 437; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 40. PR \$8.00. JE 612, 613, 024, 921. KW Welfare Economics. Revenue-Supported Industries. Competitive Equilibrium. Regulatory Agencies.

AB This paper examines the welfare effects of regulation on product markets affected by revenue-support programs. Section I introduces the proper welfare measures for these industries and examines the market impacts of new regulations. The analysis indicates that the distribution of effects between producers and consumers may be reversed qualitatively from the competitive equilibrium case and that the net market effect may, under some plausible conditions, be nonnegative. In Section II, the framework is applied to regulation affecting agricultural products subject to the current form of price supports. It is shown that the savings in the United States Treasury costs associated with regulation-induced reductions in output may be sufficiently large to outweigh consumers' and producers' losses. In any case, the use of the competitive model instead of the correct specification will produce biased estimates of the product market welfare effects of regulation, in particular, overestimates of the net market welfare effect. An empirical example comparing the impact of production restrictions on the five major crops covered by price supports shows that this bias in measuring the net market welfare effect may be as large as 50 percent of the true value.

Lillard, Lee A.

PD July 1986. TI Methodological Issues in the Evaluation of CETA Programs: Endogenous Participation, Completion and Program Assignment. AU Lillard, Lee A.; Kumbhakar, Subal. AA The Rand Corporation. SR Rand Note: N-2450-DOL/RC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 46. PR No Charge. JE 811, 812, 822, 911, 824. KW Comprehensive Employment and Training Act Program. Ceta. Job Training. Participation. Comprehensive Employment and Training Act. Wages.

AB This Note examines selected methodological issues for the evaluation of training programs similar to the one established by the Comprehensive Employment and Training Act. It addresses two aspects of the training programs that are treated only casually in the literature. First, in addition to the worker's endogenous participation and program-completion decisions, the authors' analysis includes the program sponsor's endogenous decisions concerning the type of training received by the trainee (i.e., assignment to a program type) and the placement of the trainee in a job at the end of the training period. Second, the authors analyze various components of earnings (in terms of wage rates, hours per week, and weeks worked), as well as individual differences in the long-run level and growth of these components, and transitory variations.

Lindbeck, Assar

PD September 1986. TI Efficiency Wages Versus Insiders and Outsiders. AU Lindbeck, Assar; Snower, Dennis. AA Institute for International Economic Studies, Sweden Birkbeck College, University of London, London W1P 1PA. SR Centre for Economic Policy Research Discussion Paper: 133; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions.

JE 821, 023, 026, 131. KW Unemployment. Efficiency Wages. Insiders. Outsiders. Underbidding.

AB This paper compares two theories of involuntary unemployment: the efficiency-wage theory and the insider-outsider theory. We indicate that one of the central problems in providing microfoundations for the existence of involuntary unemployment is to explain why there is no underbidding, and we compare the two theories in this context.

Linhart, Peter B.

TI The Sealed-bid Mechanism for Bargaining with Incomplete Information. **AU** Leininger, Wolfgang; Linhart, Peter B.; Radner, Roy.

Livne, Zvi A.

TI Resolving a Conflict Situation With a Status-Quo Outcome: An Axiomatic Model. **AU** Gupta, Sunil; Livne, Zvi A.

Ljungqvist, Lars

TI Money Does Granger-Cause Output in the Bivariate Output-Money Relation. **AU** Christiano, Lawrence J.; Ljungqvist, Lars.

Los, Cornelis A.

PD December 1986. **TI** Why There Is Still No Empirical Evidence for a Monetary Equation] **AA** Domestic Research Department, Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8614; Federal Reserve Bank of New York 33 Liberty Street New York, N.Y. 10045. **PG** 18. **PR** No Charge. **JE** 211, 036, 023, 212, 311. **KW** Regression Analysis. Prejudices. Money Equation. Noisy Data.

AB These are critical comments on a paper presented at the Joint Session of the AEA and the History of Economics Society "Econometric Research and the Development of Economic Analysis", New Orleans, December 29, 1986. First it criticizes the approaches taken in this and other recent papers to criticize the shortcomings of the "revelatory powers of econometrics" and then to substitute only a new economic theory, without any indication of a new empirical methodology or fresh empirical evidence for the newly proposed economic theory. Next we criticize the prejudices of current econometric data analysis of noisy data which still relies heavily on regression analysis. We show that regression analysis is deficient, prejudiced (in the Kalman interpretation) and, in practice, always biased. We illustrate these deficiencies, which underlie the lack of convincing evidence for the money equation, with a concrete empirical example and indicate an alternative methodology.

PD February 1987. **TI** The Prejudices of Least Squares, Principal Components and Common Factor Schemes. **AU** Los, Cornelis A.; Kalman, R. E. **AA** Los: Federal Reserve Bank of New York. Kalman: Swiss Federal Institute of Technology and the University of Florida at Gainesville. **SR** Federal Reserve Bank of New York Research Paper: 8701; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 32. **PR** No Charge.

JE 210. KW Identification. Inexact Data. Standard Statistical Prejudice. Codimension. System Theory. Collinearity.

AB We prove mathematically that the least squares scheme of identification is of little use for identification using inexact data even in the low noise case. Its results depend solely on the prejudice concerning which subsets of variables are chosen as "regressands" and which as "regressors" from a given set of data variables. In practice least squares regression results are always biased and dependent on the relative noise levels, while even the signs of the "estimates" are completely determined by the arbitrary choice of the regressands in case the number of underlying relationships is misspecified. The principal components and statistical common factor schemes fare similar fates, since the choice of how many principal components and common factors to retain is essentially arbitrary and not determined by the data. Both schemes produce artificial and unexplained correlations among the residuals. For the statistical common factor scheme this occurs because it violates Wilson's '1929 inequality. A fortiori we prove exactly why in practice factor indeterminacy occurs. The exact (ideal) multiple common factor scheme of Frisch (1934) and Thurstone (1935) has not yet been solved, except for small numbers (less than six) of data variables.

PD April 1987. **TI** Identification of a Linear System from Inexact Data: A Three Variable Example. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8703; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 52. **PR** No Charge. **JE** 211, 036, 132, 213. **KW** Latent Variables. Frisch Scheme. Common Factor Analysis. Simultaneous Equation Systems. Noise. Exact System.

AB In 1901 Pearson formulated the general problem of how to fit a hyperplane in the most efficient way to a system of points in a data space. This problem is still not exactly solved in all its generality. As Kalman shows, all statistical attempts to solve the problem have failed, because each of them can provide only prejudicial, statistical, inexact, but not objective, mathematical, exact solutions. However, exact solutions do exist for special cases, as is shown in this paper. Its main theorem provides the mathematical framework in which the problem and the shortcomings of the statistical solutions are discussed, in particular those of the least squares regression and statistical common factor schemes. It will be argued that the exact common factor, or Frisch '1934 scheme, which requires the residual covariance matrix to be diagonal, offers the most promise to direct us to complete and exact solutions, even though it imposes severe restrictions on the orders of the systems because of Wilson's '1929 inequality. Throughout this paper the problem and its various solution schemes are illustrated by an empirical example consisting of three data variables describing an aspect of the profitability performance of some large bank holding companies. In this case the Frisch scheme provides a unique solution, contrary to the pessimistic conclusion of Klepper and Leamer '1984 based on a similar, theoretical, example. The Frisch solution is the best available, since it explains simultaneously the largest percentages of each of

the data variances, while generating the logically required mutually orthogonal residuals.

Love, H. Alan

TI The Effects of Monetary Policy on United States Agriculture. AU Chalfant, James A.; Love, H. Alan; Rausser, Gordon C.; Stamoulis, Kostas G.

MacAvoy, Paul W.

TI The Transition from Natural to Synthetic Gas. AU Bauer, Jack W.; MacAvoy, Paul W.

PD December 1986. TI The Collapse of Metal Prices. AA William E. Simon Graduate School of Business Administration, University of Rochester. SR University of Rochester Center for Research in Government Policy and Business Working Paper: GPB 86-07; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 43. PR NC single copies 50| each paper beyond 5 in each order. JE 721, 212, 632, 611, 431. KW Metal Prices. Inflation. Market Structure. Commodities. Metals.

AB The collapse of international metal prices in the 1980s can be explained by low demand growth and supply growth that has exceeded rates in earlier periods. To develop the interactions of these shifts a basic reduced-form equation has been developed for seven metals. While this explains a major share of recent price variation, only when exchange rate and entrants share variables are added is the equation correctly specified.

MacGregor, Mary E.

TI Supply-Oriented Macroeconomics: The MACE Model of Canada. AU Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre; Chung, Alan.

Magill, M. J. P.

TI Existence of Equilibrium with Incomplete Markets. AU Husseini, S. Y.; Lasry, J. M.; Magill, M. J. P.

Mahoney, Patrick I.

PD January 1987. TI Responses to Deregulation: Retail Deposit Pricing from 1983 through 1985. AU Mahoney, Patrick I.; White, Alice P.; O'Brien, Paul F.; McLaughlin, Mary M. AA Staff, Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Staff Studies Paper: 151; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, DC 20551. PG 29. PR Free (Limit 5 copies per person). JE 312, 311, 315, 611, 613. KW Deposit Offering Rates. Deregulation. Financial Institutions. Banks. Thrifts. Interest Rate Ceilings.

AB The removal of interest rate restrictions on retail time deposits in October 1983 gave commercial banks and thrift institutions nearly complete freedom to set offering rates on retail accounts. This study examines the pricing of retail time deposits and money market deposit accounts by commercial banks and FSLIC-insured thrift institutions from October 1983 through December 1985 on an aggregate and an individual institution basis. The appendix provides a history of the regulation of deposit offering rates and a chronology of interest rate ceilings

from 1933, when ceilings on deposit offering rates were established, through April 1, 1986, when all remaining ceilings were removed. In general, depository institutions responded to deregulation in a measured way, following various pricing strategies. The most striking regularity in the data was that thrift institutions, in the aggregate, consistently offered higher rates on all accounts -- especially on longer-term accounts -- than did commercial banks. The differences in the average offering rates between the two types of institutions on time accounts usually exceeded the 25-basis point thrift differential that had been part of the Regulation Q interest rate structure just before deregulation. Over most of the period studied, the average offering rates on most retail deposits at both types of institutions were below interest rates on market instruments of comparable maturity. Offering rates responded with varying lags to changes in market interest rates over the period studied, and the difference between offering rates and market interest rates varied considerably. Data on deposit flows showed that a steeper deposit yield curve enhanced flows into longer-term time deposits, demonstrating a role for pricing in the determination of the maturity distribution of deposit inflows. Deregulation did affect the liability structure of both sets of institutions, though not dramatically. Commercial banks increased the importance of retail deposits at the expense of managed liabilities and transaction accounts, whereas thrift institutions increased their reliance on managed liabilities. Offering rates of commercial banks and thrift institutions differed state by state. Although the average offering rates of thrift institutions generally exceeded those at commercial banks, analysis of data for individual institutions revealed a diversity of pricing strategies. Only in a few cases did an institution pay the highest rate on a deposit category for long, and no institution paid the highest rate on all deposit categories at any one time. In addition, individual institutions frequently adjusted their offering rates relative to their competitors, suggesting efforts to explore depositor response to changes in offering rates.

Mankiw, N. Gregory

TI Permanent and Transitory Components in Macroeconomic Fluctuations. AU Campbell, John Y.; Mankiw, N. Gregory.

Manning, Willard G.

PD August 1986. TI The Demand for Dental Care: Evidence from a Randomized Trial in Health Insurance. AU Manning, Willard G.; Bailit, Howard L.; Benjamin, Bernadette; Newhouse, Joseph P. AA The Rand Corporation. SR Rand Report: R-3225-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 47. PR No Charge. JE 913, 914, 921. KW Dental Care. Health Insurance. AB Using data from a randomized trial in health insurance, this report examines the effect of cost sharing on use of dental services other than orthodontia. The data come from a nonaged, noninstitutionalized civilian population of four urban and two rural sites. The authors reach two major conclusions: (1) Reducing the level of cost sharing increases demand for dental services; dental expenses rise 46 percent when the coinsurance rate falls

from 95 percent to 0 percent, subject to a catastrophic limit on out-of-pocket expenses. (2) Increased income affects dental visits differently than dental expenditures; lower-income individuals tend to have more expensive visits than high-income individuals. 47 pp. Bibliog.

PD August 1986. **TI** Use of Outpatient Mental Health Care - Trial of a Prepaid Group Practice Versus Fee-for-Service. **AU** Manning, W. G.; Wells, K. B.; Benjamin, B. **AA** Rand Corporation. **SR** Rand Report: R-3277-NIMH; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. **PG** 101. **PR** No Charge. **JE** 913. **KW** Mental Health Care. Health Insurance.

AB The aim of this study was to determine whether a prepaid group practice delivers less outpatient mental health care than fee-for-service when both serve comparable populations. To do this, it used data from the RAND Health Insurance Study, a randomized controlled trial that assigned families to a prepaid group practice -- Group Health Cooperative of Puget Sound (GHC) -- or to fee-for-service insurance plans. The study also contained data on existing GHC enrollees, who served as controls. The study found that when GHC and fee-for-service plans treat comparable groups of patients who face no cost sharing, GHC delivers a much less intensive style of mental health care but treats a comparable fraction of the population. Adding cost sharing to fee-for-service plans reduces mental health expenses, but it also lowers the probability of use even though it does not lower the intensity of care.

TI The Demand for Episodes of Mental Health Services. **AU** Keeler, Emmett B.; Wells, Kenneth B.; Manning, Willard G.; Rumpel, J. David; Hanley, Janet M.

Marchand, M.

PD 1986. **TI** Optimal Commodity Taxation and Tax Reform Under Unemployment. **AU** Marchand, Maurice; Pestieau, Pierre; Wibaut, Serge. **AA** Marchand: Centre for Operations Research and Econometrics, Universite Catholique de Louvain and IAG. Pestieau: Centre for Operations Research and Econometrics, Universite Catholique de Louvain and Universite de Liege. Wibaut: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8631; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 20. **PR** No Charge. **JE** 323, 324, 023. **KW** Tax Reform. Commodity Taxes. Disequilibrium. Involuntary Unemployment.

AB This paper derives the optimal commodity tax formula and the tax reform rule which ought to be used in a situation of (orthodox Keynesian) unemployment. The setting considered is that of a four-good one - individual model with fixed real wage implying an excess supply of labor. The presentation is very simple and based on intuitive and graphical arguments, and the emphasis is put on comparing our results with the more traditional results derived under full employment. The paper concludes with an empirical study of tax reform.

TI Linear Incentive Schemes to Control Public Firms.

AU Chamley, C.; Marchand, M.; Pestieau, P.

Margo, Robert A.

PD May 1987. **TI** Accounting for Racial Differences in School Attendance in the American South, 1900: The Role of Separate-But-Equal. **AA** Department of Economics, Colgate University. **SR** National Bureau of Economic Research Working Paper: 2242; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 917, 914, 122, 912. **KW** American South. Racial Segregation. Education. Poverty. Black Children. Racial Discrimination.

AB Everyone knows that public school officials in the American South violated the Supreme Court's separate-but-equal decision. But did the violations matter? Yes, enforcement of separate-but-equal would have narrowed racial differences in school attendance in the early twentieth century South. But separate-but-equal was not enough. Black children still would have attended school less often than white children because black parents were poorer and less literate than white parents.

Marquez, Jaime

PD January 1987. **TI** Financial Concentration and Development: An Empirical Analysis of the Venezuelan Case. **AU** Marquez, Jaime; Shack, Marquez Janice. **AA** Marquez: Division of International Finance, Federal Reserve Board. Shack-Marquez: Division of Research and Statistics, Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 300; International Finance Division Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 36. **PR** No Charge. **JE** 112, 111, 121, 212. **KW** Financial Concentration. U-Hypothesis. Development. Truncated Variables. Venezuela. Distribution of Income. Distribution of Wealth.

AB Knowledge of whether the gains from development are evenly distributed is central to the theory and practice of development economics. In this regard, a number of investigators have noted that in the process of economic development, inequalities in the distribution of income first grow and then decline, giving rise to what is generally known as the U-hypothesis (or the inverted U). This paper tests whether this hypothesis holds for the distribution of financial wealth in Venezuela. Intuitively, one might expect that inequalities in the distribution of wealth would mirror inequalities in the distribution of income because of income's role in determining asset holdings. Despite its intuitive appeal, this issue has not been addressed in the applied literature, a task that this paper undertakes. In addition, understanding the behavior of financial concentration is relevant to addressing both normative and policy questions. Normative questions arise because oil, a nationally owned resource, has been the cornerstone of Venezuela's development strategy. In this context, an increase in financial concentration might indicate that the gains from development are not being evenly distributed.

Marquis, Susan

PD August 1986. **TI** Characteristics of Health

Insurance Coverage: Descriptive and Methodological Findings From the Health Insurance Experiment. AA The Rand Corporation. SR Rand Report: N-2503-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 77. PR No Charge. JE 913, 921, 914. KW Health Insurance. Health Financing. Medical Expenses.

AB Information about the generosity of health insurance coverage is essential for formulating health financing policy. This Note describes the insurance coverage held by individuals under age 65, based on data collected as part of the RAND Health Insurance Experiment. The study found notable differences between income groups in the degree of protection against medical expenses. The poor are more likely to be uninsured than higher income individuals, and the difference is pronounced if adequacy of protection is defined relative to income. The study also found that a few key characteristics of a medical plan explain about 70 percent of the variance between plans in the comprehensive generosity measures, suggesting that a simple set of proxy indicators of plan generosity can be obtained at reasonable cost. 77 pp. Ref.

PD September 1986. TI Choice Under Uncertainty and the Demand for Health Insurance. AU Marquis, Susan M.; Holmer, Martin R. AA Rand Corporation. SR Rand Note: N-2516-HHS; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 50. PR No Charge. JE 913, 026, 921. KW Health Insurance. Decisionmaking. Risk.

AB This Note uses data on families' preferences for insurance to estimate and compare several models of decisionmaking under risk. By characterizing health insurance as a risky prospect and specifying structural models of prospect choice, the models estimated here differ from previous empirical models of health insurance demand in that they can be used to analyze choice among any number of arbitrarily defined plans. The ability to generalize beyond the number and type of plans present in the data is essential for policy analysis, because it permits the examination of policy options outside current experience.

Marron, J. S.

TI Semiparametric Comparison of Regression Curves. AU Hardle, Wolfgang; Marron, J. S.

Marshall, William J.

TI The Economic Incidence of the Interstate Commerce Act of 1887: A Theoretical and Empirical Analysis of the Shorthaul Pricing Constraint. AU Gilligan, Thomas W.; Marshall, William J.; Weingast, Barry R.

Mathewson, Frank

TI Unlimited Liability and Free Banking in Scotland. AU Carr, Jack; Glied, Sherry; Mathewson, Frank.

TI The Economics of the Legal Organization of Firms. AU Carr, Jack; Mathewson, Frank.

Mayer, Thomas

PD March 1987. TI Federal Reserve Policy Since October 1979: A Justified Response to Financial Innovations? AA University of California at Davis.

SR University of California at Davis Research Program in Applied Macro and Macro Policy: 40; Department of Economics, University of California at Davis, Davis, CA 95616. PG 24. PR No Charge. JE 311. KW Monetary Policy. Monetary Targets. Financial Innovations. Fed Policy.

AB This survey of Fed policy since October 1979 focuses on the extent to which financial innovations caused the Fed to downplay monetary targets, and the extent to which they justified such a shift away from monetary targeting. It concludes that financial innovations have not destroyed the case for monetary targeting.

McAfee, R. Preston

PD February 1986. TI Competition for Agency Contracts. AU McAfee, R. Preston; McMillan, John. AA Department of Economics, University of Western Ontario. SR University of Western Ontario Centre for Decision Sciences and Econometrics Technical Report: 10; The Centre for Decision Sciences and Econometrics, Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 29. PR No Charge. JE 022, 025, 026, 610, 511. KW Principal Agent. Contract Theory. Auction. Moral Hazard. Adverse Selection. Asymmetric Information. Incentives.

AB This paper introduces a market for the services of agents into a principal-agent model. The principal and the potential agents are risk neutral. The contract trades off adverse selection against moral hazard. In a broad range of circumstances, the optimal contract is linear in the outcome. In an incentive-compatible contract, the more able an agent is, the larger is his contractual share of his marginal output; thus a more able agent is induced to work at a rate closer to the first best. Despite the principal's ability to commit himself to a mechanism, the asymmetry of information leaves the selected agent with positive surplus.

McAleer, Michael

PD December 1986. TI Testing Separate Time Series Models. AU McAleer, Michael; McKensie, Colin; Hall, Anthony D. AA Australian National University. SR Australian National University Working Paper in Economics and Econometrics: 142; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. PG 20. PR No Charge. JE 211. KW Autoregressive Models. Inappropriate Alternatives. Separate Hypotheses. Moving Average Models. Lagrange Multiplier Tests.

AB In this paper we develop simple procedures for testing the adequacy of separate time series models. The test statistics may be calculated using auxiliary regressions that are very similar to those used for calculating Lagrange Multiplier test statistics. While the separate tests are designed to yield high power against separate alternatives, they are also powerful as diagnostic checks against a range of inappropriate alternatives. The small sample properties of the separate and Lagrange Multiplier tests are compared on the basis of a Monte Carlo experiment.

McCallum, Bennett T.

PD February 1987. TI The Development of

Keynesian Macroeconomics. AA Graduate School of Industrial Administration, Carnegie-Mellon University. SR National Bureau of Economic Research Working Paper: 2156; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 023, 031. KW Keynesian Macroeconomics. Business Cycle. Aggregate Demand. Price Stickiness. Incomplete Information.

AB This paper provides an outline of the historical development of Keynesian macroeconomics. It first argues that the business-cycle model of J.M. Keynes's General Theory featured analytical ingredients that were present in earlier writings and attained its theoretical precision only in contributions made later. Remaining sections of the paper focus on the key characteristic of Keynesian theory, namely, a postulated stickiness of nominal prices that enables aggregate demand to play a greater role in output determination than it does in flexible-price classical analysis. Three approaches that have been historically important are ones relying upon (i) equilibria conditional on given prices, (ii) algebraic Phillips-type price adjustment relations, and (iii) equilibrium analysis with incomplete information. The paper reviews difficulties with each of these and concludes with a discussion of relevant issues of today.

McKenzie, Colin

TI Testing Separate Time Series Models. AU McAleer, Michael; McKenzie, Colin; Hall, Anthony D.

McLaughlin, Mary M.

TI Responses to Deregulation: Retail Deposit Pricing from 1983 through 1985. AU Mahoney, Patrick I.; White, Alice P.; O'Brien, Paul F.; McLaughlin, Mary M.

McMillan, John

TI Competition for Agency Contracts. AU McAfee, R. Preston; McMillan, John.

PD February 1987. TI Incentive Effects of Price Rises and Payment-System Changes on Chinese Agricultural Productivity Growth. AU McMillan, John; Jing, Zhu Li; Whalley, John. AA Department of Economics, University of Western Ontario. SR National Bureau of Economic Research Working Paper: 2148; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 711, 226, 121, 124, 134. KW Agriculture. China. Incentives. Inflation. Peasant.

AB This paper analyzes the relative importance of the major factors underlying the post-1978 increase in China's agricultural productivity. We present a method for assessing the role of price increases and strengthened individual incentives due to the introduction of the responsibility system. Data on pre- and post-1978 Chinese agricultural performance are used to calculate incentive indices, giving the fraction of their marginal product that peasants received under the pre-1978 regime.

McRae, Robert N.

TI Supply-Oriented Macroeconomics: The MACE Model of Canada. AU Helliwell, John F.; MacGregor, Mary E.;

McRae, Robert N.; Plourde, Andre; Chung, Alan.

Meghir, Costas

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

Mehra, Rajnish

TI "On the Term Structure of Interest Rates". AU Donaldson, John B.; Johnsen, Thore; Mehra, Rajnish.

Melino, Angelo

TI The Response of Interest Rates to the Federal Reserve's Weekly Money Announcements: The "Puzzle" of Anticipated Money. AU Deaves, Richard; Melino, Angelo; Pesando, James E.

Melumad, Nahum

PD February 1987. TI Delegation as a Commitment Device: The Case of Income Tax Audits. AU Melumad, Nahum; Mookherjee, Dilip. AA Graduate School of Business, Stanford University. SR Stanford Graduate School of Business Research Paper: 933; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. PG 38. PR No Charge. JE 323, 026, 025, 024, 511, 541. KW IRS. Tax. Principal-Agent. Delegation. Commitment. Audits. Taxpayers. Sequential Equilibrium.

AB Interest conflicts between a principal and an agent are usually viewed as an unavoidable and costly by-product of delegation. In this paper, we argue that such interest conflicts may be beneficial in some settings, where the principal faces problems in rendering some important commitments (with respect to a second, distinct, set of agents) credible. We demonstrate this in a tax evasion context, where it is difficult for the government to commit directly to ex ante optimal audit policies, because these are generally ex post Pareto inefficient, and involve the use of random audits. We first show that this inability to commit results in a strict welfare loss compared to a full commitment case. We then consider delegating audit decisions to a strategic auditor and committing to a simple incentive contract for the auditor -- based only on aggregate revenues collected and aggregate audit costs -- which induces the auditor to pursue goals distinct from the principal's objectives. We prove that such delegation enables us to implement any ex ante efficient audit policy as the unique sequential equilibrium outcome of the game subsequently played between taxpayers and the auditor.

Metz, Achim

TI An Efficient Labeling Technique for Solving Sparse Assignment Problems. AU Derigs, Ulrich; Metz, Achim.

Milkovich, George T.

TI Compensation and Firm Performance. AU Ehrenberg, Ronald G.; Milkovich, George T.

Miller, Robert A.

PD April 1986. TI Innovation and Reputation. AA Carnegie-Mellon University, Graduate School of Industrial Administration Economics Research

Center/NORC. SR Economics Research Center/NORC Discussion Paper: 86-2; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. PG 37. PR \$2.00; Send requests to Librarian, Economics Research Center. JE 621, 611, 026, 531, 631. KW Price Signaling. Product Reputation. Marketing. Monopoly. Dynamic Game. Asymmetric Information. Quality. Product Life Cycle.

AB This paper analyzes a monopolist which markets successive generations of new and improving nondurable products. Prices, research intensity and product innovations are derived as sequential equilibrium outcomes to a dynamic game with incomplete information. Asymmetric information is an important feature of the model. The monopolist is fully aware of the current product's quality, as are consumers who have tried it. However the beliefs of other people are characterized by a probability distribution which depends on the monopolist's marketing strategy and the product's popularity. The analysis illustrates a new context in which price signalling might serve as a mechanism for ensuring that only high quality products are marketed. More importantly, it shows how product life cycles are generated in the absence of signalling, and how a reputation for producing high quality goods becomes established in such cases.

Mines, Richard

TI The Effects of Job Site Sanitation and Living Conditions on the Health and Welfare of Agricultural Workers. AU Frisvold, George; Mines, Richard; Perloff, Jeffrey M.

Mintz, Jack

TI Taxation and the Firm's Leverage Decision: A Survey of Theoretical Issues. AU Bartholdy, Jan; Fisher, Gordon; Mintz, Jack.

Mitchell, Bridger

PD June 1986. TI Optimal Peak-Load Pricing for Local Telephone Calls; Technical Appendixes. AU Mitchell, Bridger; Park, Rolla Edward. AA The Rand Corporation. SR Rand Report: R-3404/1-RC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 72. PR No Charge. JE 613, 635. KW Peak-Load Pricing. Telephone. Communications. Capacity Cost. Time-Of-Day Rates. Rationing.

AB This report contains five technical appendixes that support the analysis presented in R-3404-RC.

PD June 1986. TI Optimal Peak-Load Pricing for Local Telephone Calls. AU Mitchell, Bridger M.; Park, Rolla Edward. AA The Rand Corporation. SR Rand Report: R-3404-RC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 37. PR No Charge. JE 613, 635. KW Peak-Load Pricing. Telephone. Communications. Capacity Cost. Time-Of-Day Rates. Rationing.

AB This report shows how to find optimal time-of-day measured-rate prices for local telephone calls. It uses a simulation model based on actual telephone traffic data for each hour for a full year. The model calculates capacity cost savings, measurement costs, losses in consumer benefit due to price rationing, and losses due to quantity

rationing, to assess the net welfare effects of alternative tariffs. It is the first application of peak-load pricing theory to recognise and account for variation in demand within feasible pricing periods. Feasible tariffs are limited to perhaps three price periods that repeat from day to day, and local telephone demand varies markedly within such periods, sharply limiting the efficiency gains that price rationing can achieve. The findings suggest that, contrary to conventional wisdom, measured-rate pricing of local telephone calls is likely to be less efficient than traditional flat-rate pricing. If local measured service is desirable public policy, it must be justified on grounds other than economic efficiency.

Mizrach, Bruce

PD December 19, 1986. TI Portfolio and Transactions Demand for Money Under Price Uncertainty. AU Mizrach, Bruce; Santomero, Anthony M. AA Mizrach: Department of Economics, University of Pennsylvania. Santomero: The Wharton School. SR University of Pennsylvania Econometrics Discussion Paper: 86-8; c/o Betty Hutt, Department of Economics, University of Pennsylvania, 3718 Locust Walk (CR) Philadelphia, PA 19104-6297. PG 29. PR 1.00; checks payable to Department of Economics, University of Pennsylvania. JE 311, 212, 023. KW Price Uncertainty. Conditional Heteroskedasticity. Money Demand. ARCH.

AB This paper derives comparative statics effects for money demand when money's own rate of return is uncertain. In the presence of a cash-in-advance constraint, the effect of the variance of inflation is ambiguous because of competing portfolio and transactions motives. We estimate a dual motive model for money using sample and rational expectations of the portfolio moments. We show that the sample variance measures provide inconsistent estimates and demonstrate that unexpected changes in the variance are what matters. The data, particularly in the recent deflation, strongly support the model.

Monfort, A.

TI Testing for Common Roots. AU Gourieroux, G.; Monfort, A.; Renault, E.

Mookherjee, Dilip

TI Delegation as a Commitment Device: The Case of Income Tax Audits. AU Melumad, Nahum; Mookherjee, Dilip.

Morgan, Peter B.

PD March 1986. TI The VPRT: A Sequential Testing Procedure Dominating the SPRT. AU Morgan, Peter B.; Cressie, Noel. AA Morgan: Department of Economics, University of Western Ontario. Cressie: Department of Statistics, Iowa State University. SR University of Western Ontario Centre for Decision Sciences and Econometrics Technical Report: 11; The Centre for Decision Sciences and Econometrics, Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 43. PR No Charge. JE 211. KW Cost Function. Sequential Decision Procedure. Sequential Probability Ratio Test. SPRT. VPRT. Hypothesis Test. Power. Size.

AB Under more realistic assumptions than those usually imposed in the sequential analysis literature, a variable-sample-size sequential probability ratio test (VPRT) of two simple hypotheses is found which maximizes the expected net gain over all sequential decision procedures. The VPRT also minimizes the expected total sampling cost and, under slightly more general conditions than those imposed by Wald and Wolfowitz (1948), reduces to the one-observation-at-a-time sequential probability ratio test (SPRT). Finally, the ways in which the size and power of the VPRT depend upon the parameters of the decision procedure are examined.

TI Improving Upon the Neyman-Pearson Approach to Testing Hypotheses. **AU** Cressie, Noel; Morgan, Peter B.

Mori, Akio

PD December 1986. **TI** Zum Stand der Japanischen Betriebswirtschaftslehre. **AA** Kobe University. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: D-10; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. **PG** 26. **PR** No Charge. **JE** 512, 031. **KW** History of Applied Economics. Japan.

TI Das Finanzierungsverhalten Japanischer und Deutscher Unternehmen. **AU** Albach, Horst; Mori, Akio.

Morris, Cynthia Taft

PD November 1986. **TI** Economic Development and Institutional Change in the 19th Century. **AU** Morris, Cynthia Taft; Adelman, Irma. **AA** Morris: Smith College. Adelman: Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 434; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 22. **PR** \$4.40. **JE** 110, 041, 411, 112, 111, 123. **KW** Economic Development. Institutional Change. Economic Growth. Comparative Economics.

AB In this paper we summarize the institutional implications of our quantitative research into the dynamics of development of 23 countries during the nineteenth century. To give away the punchline, we found that: (1) Domestic institutional change was the most potent dynamic factor determining the pace and structure of economic development in the 19th century; (2) Initial institutions were more important than resources, capital, technology, demography, or markets in determining subsequent patterns of development; and (3) There was no unique constellation of institutional prerequisites. Different clusters of institutions interacted with economic conditions and policy choices to determine economic performance.

Mouchart, M.

TI Non-Causality and Marginal Markov Processes. **AU** Florens, J. P.; Mouchart, M.; Rolin, J. M.

Mulkay, Benoit

TI Investment in a Disequilibrium Context or Does Profitability Really Matter? **AU** Lambert, Jean Paul; Mulkay, Benoit.

Navarro, Peter

TI How Markets for Impure Public Goods Organize: The Case of Household Refuse Collection. **AU** Dubin, Jeffrey A.; Navarro, Peter.

Nerlove, Marc L.

TI The Dynamics of Exchange Rate Volatility: A Multivariate Latent Factor ARCH Model. **AU** Diebold, Francis X.; Nerlove, Marc L.

Neu, C. R.

PD June 1986. **TI** Surprises in the International Economy: Toward an Agenda for Planning and Research. **AU** Neu, C. R.; Henry, Donald Putnam. **AA** The Rand Corporation. **SR** Rand Report: R-3401; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 74. **PR** No Charge. **JE** 420, 430, 440, 133, 132. **KW** International Economic Developments. Capital Flows. International Financial Markets. Trade Patterns. Migration. Geopolitical Events. Threats to Commercial Order.

AB This report is a digest of the proceedings of a conference hosted by The Rand Corporation, December 5-6, 1985, to consider possible international economic developments during the next ten years. Participants tried to identify potentially "surprising" developments--developments the probability or consequences of which are insufficiently recognized today. They discussed major potential "surprises" in the following areas: (1) international financial markets and capital flows; (2) international trade patterns and the international trading regime; (3) macroeconomic conditions and policies; (4) energy and agriculture; (5) population, immigration, and labor; (6) threats to the commercial order; (7) geopolitical developments; and (8) national sovereignty and the significance of national borders. Participants agreed that no forecasting technique would completely prevent "surprises," and that policy must be formulated so as to be robust in the face of changing circumstances. The report describes some of the more striking possible future developments identified during conference discussions. 74 pp.

Neven, D. J.

TI Market Efficiency With Combinable Products. **AU** Anderson, S. P.; Neven, D. J.

Newell, Andrew

PD November 1986. **TI** Corporatism, the 'Laissez-faire' and the Rise in Unemployment. **AU** Newell, Andrew; Symons, James S. V. **AA** Newell: Centre for Labour Economics and University of Sussex. Symons: Centre for Labour Economics and University College, London. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 260; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UK. **PG** 62. **PR** No Charge. **JE** 824, 832, 023. **KW** Corporatism. Unemployment. Unregulated Labor Market. Laissez-Faire. Wages.

AB The paper argues that long spells of high unemployment are an essential property of the unregulated labour market. We present evidence that this

unemployment is essentially classical. Corporatism is interpreted as a device for controlling the wage to achieve a lower level of unemployment than produced by the *laissez-faire*. We show in a number of case studies that corporatism has sometimes achieved this, but is always at risk from internal destructive forces.

Newell, Marie Louise

TI Family Responsibilities and Pay Differentials: Evidence from Men and Women Born in 1946. AU Joshi, Heather; Newell, Marie Louise.

Newey, Whitney

TI Efficient Estimation and Identification of Simultaneous Equations Models with Covariance Restrictions. AU Hausman, Jerry A.; Newey, Whitney K.; Taylor, William E.

PD June 1986. TI Asymmetric Least Squares Estimation and Testing. AU Newey, Whitney K.; Powell, James L. AA Newey: Department of Economics, Princeton University. Powell: Social Science Research Institute, University of Wisconsin. SR Princeton Econometric Research Program Memorandum: 325; Department of Economics, Princeton University, Princeton, NJ 08544. PG 54. PR \$2.00. JE 210, 211, 212. KW Asymmetric Least Squares. Homoskedasticity. Conditional Symmetry. Location Measures. Regression Quantiles.

AB This paper considers estimation and testing using location measures for regression models that are based on an asymmetric least squares criterion function. These asymmetric least squares estimators have properties that are analogous to regression quantiles, but are much easier to calculate, as are test statistics based on asymmetric least squares estimators. In addition we find that asymmetric least squares tests of homoskedasticity and symmetry compare quite favorably with other tests of these hypotheses, in terms of asymptotic relative efficiency. Consequently, asymmetric least squares estimation provides a convenient and relatively efficient method of summarizing aspects of the conditional distribution of a dependent variable given some regressors, which is often important for the correct interpretation of regression estimators.

TI The Revenues-Expenditures Nexus: Evidence from Local Government Data. AU Holtz, Eakin Douglas; Newey, Whitney; Rosen, Harvey.

Newhouse, Joseph P.

TI The Demand for Dental Care: Evidence from a Randomized Trial in Health Insurance. AU Manning, Willard G.; Bailit, Howard L.; Benjamin, Bernadette; Newhouse, Joseph P.

PD October 1986. TI Capitation and Medicare. AA Rand Corporation. SR Rand Report: R-3455-HCFA; The Rand Corporation, 1700 Main Street P.O. Box 2158, Santa Monica CA 90406-2158. PG 32. PR No Charge. JE 910. KW Medicare. Health Care. Health Insurance. Fee-For-Service System. Medical Care.

AB This paper addresses three issues that are becoming more important as Medicare makes greater use of capitation arrangements. First, the average adjusted per

capita cost (AAPCC) is tied to the costs of the fee-for-service system, which means it fluctuates with the mix of risks using the fee-for-service system. Addressing this issue will require adjusters in the AAPCC that are more sensitive to the mix of risks. Second, the AAPCC as now estimated appears to exhibit too much geographic variance. So-called shrinkage estimators may mitigate this problem. Third, it is widely agreed that the present AAPCC formula requires new adjusters that will yield more homogeneous risk classes. Without such adjusters a portion of the Medicare population may experience serious access problems at alternative delivery systems. Developing such adjusters will require a substantial research effort. In the interim, or in the long run if the research effort is not sufficiently successful, it seems better to rely upon a blend of capitation and fee-for-service than the present AAPCC for paying alternative delivery systems. One way to do this is to add prior utilization to the AAPCC as an adjuster, but using a weighted average of current utilization and capitation appears preferable. As adjusters improve, the weight on the capitated amount could increase. In effect, such a blend attempts to compromise between the goals of economic efficiency and access for all Medicare beneficiaries.

Nickell, Stephen

PD February 1987. TI Myopia, the 'Dividend Puzzle', and Share Prices. AU Nickell, Stephen; Wadhvani, Sushil. AA Nickell: Director, Institute of Economics and Statistics, University of Oxford, Oxford. Wadhvani: Department of Economics, London School of Economics, Houghton Street. SR Centre for Economic Policy Research Discussion Paper: 155; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 41. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 313, 521. KW Myopia. Stock Market. Dividends. Efficient Markets Hypothesis. Stationarity.

AB The view that the stock market is myopic is commonly expressed in the financial press. However, the existing econometric evidence does not support this view. In this paper, we report econometric evidence suggesting that the market attaches too high a weight to current dividends relative to future dividends. This is consistent with the widely-held belief that the market is myopic. The main reason that we obtain a different result is that we estimate a model that is more general than the standard approach. However, we find no evidence to link this myopic behaviour with increased institutional ownership of equity. Our evidence can also be interpreted as a rejection of the standard efficient markets model, even when we allow for a time-varying discount rate. In addition our test does not depend on the time-series properties of dividends (e.g. we do not require stationarity).

PD February 1987. TI Myopia, The 'Dividend Puzzle' and Share Prices. AU Nickell, Stephen; Wadhvani, Sushil. AA Nickell: Institute of Economics and Statistics, Oxford. Wadhvani: Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 272; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, ENGLAND. PG 40. PR No Charge.

JE 313, 521. KW Myopia. Share Prices. Dividends. Stock Market. Efficient Markets Hypothesis.

AB The view that the stock market is myopic is commonly expressed in the financial press. However, the existing econometric evidence does not support this view. In this paper, we report econometric evidence suggesting that the market attaches too high a weight to current dividends relative to future dividends, which is, therefore, consistent with the widely-held belief that the market is myopic. The main reason that we obtain a different result is that we estimate a model that is more general than the standard approach. However, we find no evidence to link this myopic behaviour with increased institutional ownership of equity. Our evidence can also be interpreted as a rejection of the standard efficient markets model, even when we allow for a time-varying discount rate. In addition, our test does not depend on the time-series properties of dividends (e.g., we do not require stationarity).

Nishiyama, Yasuo

TI Macroeconomics, Overshooting, and the U. S. Agriculture Sector. **AU** Rausser, Gordon C.; Nishiyama, Yasuo; Stamoulis, Kostas G.

Nugent, Jeffrey B.

PD February 1987. **TI** Foreign Aid, Economic Development and Income Distribution: Some Inferences From a CGE Model for Egypt. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8709; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 28. **PR** No Charge. **JE** 112, 121, 443. **KW** Foreign Aid. General Equilibrium. Egypt. Income Distribution.

AB This paper examines the sensitivity of quantitative assessments of foreign aid on the level of income and its distribution across income groups to alternative modelling and parametric assumptions. It does so with the use of a computable general equilibrium model for Egypt by subjecting the model to alternative assumptions. Although the results are (as expected) sensitive to the assumptions made, they indicate that at least potentially, as for example, when foreign aid takes an appropriate form and is accompanied by appropriate offsetting policies, it can be a useful tool for achieving development at minimum social cost.

O'Brien, Paul F.

TI Responses to Deregulation: Retail Deposit Pricing from 1983 through 1985. **AU** Mahoney, Patrick I.; White, Alice P.; O'Brien, Paul F.; McLaughlin, Mary M.

Osawa, Machiko

PD June 1986. **TI** Working Mothers: Changing Patterns of Employment and Fertility in Japan. **AA** University of Michigan, Economics Research Center/NORC. **SR** Economics Research Center/NORC Discussion Paper: 86-5; Economics Research Center/NORC, 1155 E. 60th Street, Chicago, Illinois 60637. **PG** 52. **PR** \$2.00; Send requests to Librarian, Economics Research Center. **JE** 820, 813, 841, 122, 045,

917, 212. **KW** Fertility. Japan. Female Labor Supply. Women. Labor Force.

AB This paper examines the economic determinants of fertility trends in Japan since World War II. Since the 1960's the increase in married women's labor force participation in most industrialized countries has precipitated a concomitant decline in fertility. It is argued that the major determinant of the fertility decline in industrialized countries is an increase in women's time cost at home owing to the increased labor force participation of married women. Trends in Japanese women's fertility and labor force participation in the post-World War II period, however, are markedly different from those observed in other industrialized countries. In Japan the fertility trend declined sharply during the 1950's, stabilized in the 1960's, resumed its decline in the early 1970's, and has continued to decline since then. This contrasts with the generally continuous decline in fertility observed in other industrialized nations since the late 1950's and early 1960's. The differential fertility rates between paid women workers in the formal sector and family workers in the informal sector are featured in this paper. I found a substantially lower fertility rate for households with wives employed outside the home, while the fertility rates for households with wives working as unpaid family workers (at home), and non-working wives is similar. This difference is significant in analyzing the reasons why the Japanese fertility trend in the post-World War II period differs from other nations. It was the relatively small number of Japanese married women working outside the home that limited the impact of the time-cost effect on fertility until the 1970's. However, the proportion of married women working outside the home has been increasing and the significance of the time-cost effect has increased accordingly, leading to the fertility decline observed since then. Both our time-series and cross-sectional analyses corroborate this hypothesis.

Othman, Ramli

TI Determinants of Contraceptive Method Choice in Peninsular Malaysia, 1961-1975. **AU** DeVanzo, Julie; Tan, Boon Ann; Othman, Ramli; Peterson, Jane R.

Pagano, Marco

TI The Advantage of Tying One's Hands: EMS Discipline and Central Bank Credibility. **AU** Giavazzi, Francesco; Pagano, Marco.

Palash, Carl

TI The Shifting Term Structure of Interest Rates. **AU** Steindel, Charles; Palash, Carl.

Palmer, Adele R.

PD September 1986. **TI** New Chemicals Regulation Under the Toxic Substances Control Act: Models for Policy Evaluation. **AU** Palmer, Adele R.; Quinn, Timothy H. **AA** Rand Corporation. **SR** Rand Note: N-2455-EPA; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 61. **PR** No Charge. **JE** 722, 621, 613, 913. **KW** Pollution. Toxins. Toxic Chemicals. Research and Development. Chemical Regulation. EPA. **AB** The Toxic Substances Control Act (TSCA)

mandates that the United States Environmental Protection Agency control health and environmental risks from new as well as existing chemicals. For many new chemicals, however, the agency lacks toxicological evidence. This Note uses economic models to evaluate priorities for applying test requirements to new chemicals and to compare effects of alternative forms of test rulings on chemical innovation. At present, the agency treats each new chemical as either hazardous or safe. The analysis of test priorities shows that the social value of a test lies in its ability to resolve uncertainty. Test priorities could be set to help society avoid the alternative errors of overregulating a safe chemical or underregulating a hazardous one. The analysis of innovation effects highlights two general properties of TSCA regulation. First, the fact that private firms bear test costs implies that efforts to obtain more test results will discourage innovations in the chemical categories targeted by the testing policy. Second, chemicals developed despite a stringent testing policy are less likely to be withdrawn when faced with a test rule than are chemicals developed in an environment of rate test requirements.

Park, Rolla Edward

TI Optimal Peak-Load Pricing for Local Telephone Calls; Technical Appendixes. AU Mitchell, Bridger; Park, Rolla Edward.

TI Optimal Peak-Load Pricing for Local Telephone Calls. AU Mitchell, Bridger M.; Park, Rolla Edward.

Pauly, Peter

TI Structural Change and the Combination of Forecasts. AU Diebold, Francis X.; Pauly, Peter.

Peleg, Bezalel

TI Ordinal Bayesian Incentive Compatible Representations of Committees. AU dAspremont, Claude; Peleg, Bezalel.

Perloff, Jeffrey M.

TI The Food Marketing System: The Relevance of Economic Efficiency Measures. AU Rausser, Gordon C.; Perloff, Jeffrey M.; Zusman, Pinhas.

TI The Effects of Job Site Sanitation and Living Conditions on the Health and Welfare of Agricultural Workers. AU Frisvold, George; Mines, Richard; Perloff, Jeffrey M.

Perry, Martin K.

PD May 1986. TI Resale Price Maintenance and Exclusive Territories in the Presence of Retail Service Externalities. AU Perry, Martin K.; Porter, Robert H. AA Porter: State University of New York at Stony Brook. Perry: Bell Communications Research, Incorporated. SR Bell Communications Research Incorporated Economics Discussion Paper: 20; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 41. PR No Charge. JE 611, 531, 633. KW Vertical Marketing Practices. Vertical Integration. Antitrust. Retail Externalities.

AB This paper examines the efficacy of vertical marketing practices such as resale price maintenance,

exclusive territories, and vertical integration. We employ a constant elasticity of substitution benefit function to generate product differentiation at the retail stage. In addition, the retail product is a bundle of the manufacturer's good and the service provided by retailers. We then allow externalities in the provision of retail service, and examine the industry equilibria for a monopolist manufacturer employing the various vertical controls. The manufacturer will employ as many vertical controls as are legal. Thus, the policy question is what vertical controls would maximize social welfare. In many cases, the socially optimal solution is either vertical integration when the service externality is strong or no vertical controls when it is weak. Resale price maintenance and exclusive territories are never optimal for these cases. However, other cases exist in which exclusive territories can be optimal over some range of the service externality, but resale price maintenance is never optimal. Our results provide some support for the current antitrust treatment of resale price maintenance as "illegal per se", as well as some justification for using a "rule of reason" standard for exclusive territories.

Persson, Torsten

PD January 1987. TI Why a Stubborn Conservative Would Run a Deficit: Policy With Time-Inconsistent Preferences. AU Persson, Torsten; Svensson, Lars E. O. AA Rochester Center for Economics Research. SR University of Rochester Center for Economic Research Working Paper: 71; Department of Economics, University of Rochester, Rochester, NY 14627. PG 26. PR No Charge. JE 321, 322, 323, 023, 131, 133. KW Time-Inconsistency. Public Debt. Budget Deficit. Fiscal Policy. Public Consumption. Politics.

AB Consider a conservative government, meaning a government in favor of a low level of public consumption, which knows that it will be replaced in the future by a more expansionary government in favor of a larger level of public consumption. How does this situation affect the equilibrium level of public consumption and the fiscal policy of the conservative government, compared to a situation when the conservative government remains in power in the future? We show that the resulting level of public consumption is in between the levels the two governments would choose if each were in power both in the present and in the future. In particular, we show that if the conservative government is more stubborn (in a particular sense) than the succeeding government, the conservative government may borrow more than it would if it would remain in power in the future.

Pesando, James E.

TI The Response of Interest Rates to the Federal Reserve's Weekly Money Announcements: The "Puzzle" of Anticipated Money. AU Deaves, Richard; Melino, Angelo; Pesando, James E.

PD January 1987. TI Retirement Incentives Contained in Occupational Pension Plans and Their Implications for the Mandatory Retirement Debate. AU Pesando, James E.; Gunderson, Morley. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8703; Department of Economics, University of Toronto, Toronto,

Ontario, CANADA M5S 1A1. PG 38. PR No Charge. JE 820, 918. KW Work Incentives. Pensions. Mandatory Retirement.

AB We illustrate the time path of pension benefit accruals in plans which link pension benefits to the member's years of service and earnings just prior to retirement. We find that only special retirement provisions, which rarely come into play before age 60, have the potential to create a disincentive to continued work prior to the normal retirement age of 65. We show that the postponed retirement provision that has the greatest potential to discourage work beyond age 65 has been deemed an unacceptable substitute for mandatory retirement in those jurisdictions (Quebec, Manitoba, Government of Canada) which have banned mandatory retirement. Therefore, if older workers are receiving compensation in excess of the value of their marginal product, pension plan provisions will not prevent their reaping windfall gains in the transition period following a ban on mandatory retirement.

Pesaran, M. Hashem

PD July 1986. TI Tests for Non-nested Linear Regression Models Subject to Linear Restrictions. AU Pesaran, M. Hashem; Hall, Anthony D. AA Trinity College, Cambridge. SR Australian National University Working Paper in Economics and Econometrics: 141; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. PG 10. PR No Charge. JE 211. KW Mean and Variance Adjustments. Separate Hypotheses. Linear Restrictions. Cox Tests. Wald Tests. AB Finite sample mean and variance adjustments to Cox-type and Wald-type test statistics for non-nested regression models have been shown to have reasonable small sample significance levels. The Wald-type test statistics are derived for the case of non-nested linear regression models subject to possibly non-homogeneous linear restrictions and their use illustrated.

Pestieau, Pierre

TI Optimal Commodity Taxation and Tax Reform Under Unemployment. AU Marchand, Maurice; Pestieau, Pierre; Wibaut, Serge.

TI A Case for Differential Inheritance Taxation. AU Cremer, Helmuth; Pestieau, Pierre.

TI Linear Incentive Schemes to Control Public Firms. AU Chamley, C.; Marchand, M.; Pestieau, P.

Peters, Michael

PD August 1986. TI Ex Ante Price Offers in Matching Games: Non-Steady States. AA University of Toronto. SR University of Toronto Institute for Policy Analysis Working Paper: 8611; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. PG 55. PR No Charge. JE 026, 611, 022. KW Matching Games. Non-Steady State. Nash Bargaining. Cooperative Game. Pricing.

AB A matching model is proposed and two different pricing institutions are compared. In one, the Nash cooperative bargaining split is proposed and accepted by two parties once a match has occurred. In the other,

sellers publicly post offers to trade at predetermined prices in each period before search occurs. It is shown that the relationship between the Nash bargaining split and the posted offer equilibrium price depends on the state of the market. In situations of excess demand, if demand is initially close to supply, the Nash bargaining split requires buyers who trade to pay higher prices than they would in the posted offer pricing equilibrium. However, as the market clears out the relationship is reversed and buyers do better in very 'thin' markets with the Nash bargaining split. As discount rates get close to one, both prices converge to the appropriate competitive price very quickly.

Peters, Wolfgang

PD November 1985. TI Ramsey-Preisbildung Eine Zweitbeste Regel Fur Eine Erstbeste Welt. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-17; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. PG 10. PR No Charge. JE 024, 321, 614. KW Ramsey Pricing. Second Best Rule.

Peterson, Christine

PD August 1986. TI Why Were Infant and Child Mortality Rates Highest in The Poorest States of Peninsular Malaysia, 1941-75? AU Peterson, Christine; Yusof, Khairuddin; DaVanzo, Julie; Habicht, Jean Pierre. AA The Rand Corporation. SR Rand Note: N-2329-FF/RF/WFHF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 45. PR No Charge. JE 913, 914, 841, 121. KW Infant Mortality. Child Mortality. Malaysia. Poverty. Sanitation. AB From 1941 through 1975, infant and child mortality rates were higher in the poorest states than in the other states of Peninsular Malaysia. This Note investigates possible reasons for those higher rates, using household-level data that document infant and child mortality and their correlates. The results indicate that the higher average infant mortality rate (IMR) in the four poorest states over the 1941-1975 period can be explained by such factors as poorer sanitation and the lesser incidence of hospital births. However, the major factor is the difference in ethnic composition between the two regions -- Chinese in Malaysia having a far lower IMR than Malays, and there being a smaller proportion of Chinese in the four states studied.

Peterson, Jane R.

TI Determinants of Contraceptive Method Choice in Peninsular Malaysia, 1961-1975. AU DaVanzo, Julie; Tan, Boon Ann; Othman, Ramli; Peterson, Jane R.

Pingle, Mark

PD January 1987. TI Pareto-Efficiency of Stationary Competitive Equilibria in Overlapping Generation Economics. AU Pingle, Mark; Tesfatsion, Leigh. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8707; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 43. PR No Charge. JE 021, 023, 022. KW Overlapping Generations. Pareto Efficiency.

Stationary Competitive Equilibrium.

AB The standard formulation of the two-period lived overlapping generations economy with a single perishable physical resource leads naturally to a definition of competitive equilibrium with borrowing and lending for which Pareto-efficiency is not ensured. The present paper retains the technology and preference structure of this economy. However, the transfer of units of resource between young and old agents at each time t is modelled as a constant returns to scale production process; and production decisions are separated from consumption decisions by means of a price system in the traditional "Robinson Crusoe" manner. Competitive equilibrium is then defined in terms of profit-maximizing firms, utility-maximizing consumers, and market-clearing prices. It is shown that all stationary competitive equilibria defined in this way are Pareto-efficient.

Plosser, Charles I.

PD December 1986. **TI** Further Evidence on the Relation Between Fiscal Policy and the Term Structure. **AA** William E. Simon Graduate School of Business Administration, University of Rochester. **SR** University of Rochester Center for Research in Government Policy and Business Working Paper: GPB86-10; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 34. **PR** NC single copies 50[each paper beyond 5 in each order. **JE** 321. **KW** Interest Rates. Budget Deficits. Debt.

AB This paper extends the results in Plosser (1982) to consider the recent dramatic rise in privately held debt on interest rates. The effects on both nominal and a measure of ex-ante real rates are considered. The results suggest that prior to 1979 there is no evidence to support the conventional wisdom that deficits increase either real or nominal interest rates. If anything, the results suggest the opposite. Also, during this period, temporary government spending appears to raise real rate. Since 1977 the results are more mixed. Debt shocks are marginally associated with higher real interest rates.

PD December 1986. **TI** Further Evidence on the Relation Between Fiscal Policy and the Term Structure. **AA** Graduate School of Management, University of Rochester. **SR** University of Rochester Center for Economic Research Working Paper: 66; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 34. **PR** No Charge. **JE** 321, 322, 323, 311, 313. **KW** Budget Deficits. Interest Rates. Market Efficiency. Rational Expectations. Public Debt.

AB This paper exploits market efficiency and a rational expectations version of the term structure to attempt to isolate the relation between monthly and quarterly innovations in government policy variables and both nominal and real rates of return to government securities of different maturities over a period extending through 1985. Overall, the results do not offer much support for the conventional view regarding public debt and interest rates. Nevertheless, the results appear somewhat sensitive to the time period. This should give some cause for concern when interpreting reduced form empirical results that rely on highly aggregated (such as yearly) data over long periods of time.

Plourde, Andre

TI Supply-Oriented Macroeconomics: The MACE Model of Canada. **AU** Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre; Chung, Alan.

TI Supply-Oriented Macroeconomics: The MACE Model of Canada. **AU** Helliwell, John F.; MacGregor, Mary E.; McRae, Robert N.; Plourde, Andre; Chung, Alan.

Pochet, Yves

PD December 1986. **TI** Valid Inequalities and Separation for Capacitated Economic Lot Sizing. **AA** Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain **CORE** Discussion Paper: 8649; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 13. **PR** No Charge. **JE** 022, 213. **KW** Lot Sizes. Separation Problem. Cutting Plane Algorithm.

AB A family of valid inequalities for the capacitated economic lotsizing problem is given. In the case of equal capacities, studied in more detail, a large subclass of them defines facets. A heuristic for the separation problem, based on these inequalities, is defined for use in a cutting plane algorithm. We give computational results for 12 and 24 periods test problems and for both the equal and different capacity cases. This cutting plane approach has solved to optimality all 12 period test problems with equal capacities. We also indicate how to extend this class of inequalities for more general capacitated fixed charge networks.

Polinsky, A. Mitchell

PD March 1987. **TI** Optimal Liability When the Injurer's Information About the Victim's Loss is Imperfect. **AA** Stanford Law School. **SR** National Bureau of Economic Research Working Paper: 2174; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 916. **KW** Liability. Injury Suit.

AB A central result in the economic theory of liability is that, if an injurer's liability equals the victim's loss, then either the rule of strict liability or the rule of negligence can induce the injurer to behave properly. However, for this result to hold, the injurer must know the victim's loss before the injurer decides whether to engage in the harmful activity and, a fortiori, before any harm has occurred. This paper reevaluates the rules of strict liability and negligence when the injurer's information is imperfect. Two questions are addressed: Under each rule, should the level of liability imposed on the injurer still equal the victim's loss? Are the rules of strict liability and negligence still equally desirable? With respect to the first question, it is demonstrated that the optimal level of liability generally is not equal to the victim's loss. With respect to the second question, it is shown that if the injurer's liability equals the victim's loss, then the two rules are equivalent, but if liability is set optimally under each rule, then strict liability generally induces the injurer to behave in a more appropriate way.

Porter, Robert H.

TI Resale Price Maintenance and Exclusive Territories in the Presence of Retail Service Externalities. AU Perry, Martin K.; Porter, Robert H.

TI Information, Returns, and Bidding Behavior in OCS Auctions: 1954-1969. AU Hendricks, Kenneth; Porter, Robert H.; Boudreau, Bryan.

Portes, Richard

TI The Anatomy of Financial Crises. AU Eichengreen, Barry; Portes, Richard.

Powell, James L.

TI Asymetric Least Squares Estimation and Testing. AU Newey, Whitney K.; Powell, James L.

Promel, Hans Jurgen

PD October 1986. TI Almost Bipartite-Making Graphs. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86425-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 8. PR No Charge. JE 213. KW Bipartite-Making Graphs. Graph.

AB For a finite graph K let $\text{Forb}(K)$ denote the class of all finite graphs which do not contain K as a (weak) subgraph. In this note we give a complete characterization of all those graphs K with chromatic number at least 3 which have the property that almost all graphs in $\text{Forb}(K)$ are bipartite. This extends earlier results of Erdos, Kleitman and Rothschild (International Colloquium on Comb. Theory, Atti dei Convegni Lincei 17, Vol. 2, Rome 1976, 19-27) and Lamken and Rothschild (Colloq. Math. Soc. Janos Bolyai 37, Finite and Infinite Sets, North Holland, Amsterdam 1985, 547-553).

Quandt, Richard E.

TI The Econometrics of Rationing Models. AU Goldfeld, Stephen M.; Quandt, Richard E.

PD February 1987. TI Disequilibrium Econometrics for Centrally Planned Economies. AA Princeton University, Economics Department. SR Princeton Financial Research Center Memorandum: 74; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. PG 52. PR \$3.00. JE 027, 052, 211, 212. KW Disequilibrium. Central Planning. Maximum Likelihood.

AB The paper evaluates the economic and econometric problems of formulating and estimating disequilibrium models for centrally planned economies. Attention is paid to specification problems and, in particular, to specifying the plan adjustment equation. One section deals explicitly with estimation and testing in the chronic excess demand case. A final section discusses specific issues of computing maximum likelihood estimates in disequilibrium models.

Quigley, John M.

PD September 1986. TI Interest Rate Variations, Mortgage Payments and the Geographic Mobility of Labor. AA University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8611; Department of

Economics, University of California at Berkeley, Berkeley, CA 94720. PG 30. PR \$3.50. JE 932, 823, 315. KW Residential Mobility. Due-On-Sale. Mortgage pricing. Housing. Homeowners. Migration.

AB The volatility of interest rates and the deregulation of the mortgage lending sector have meant that many homeowners also own mortgages at favorable terms. This paper presents a model of residential mobility decisions and an empirical analysis which evaluates the importance of the ownership of mortgages at favorable terms upon the mobility of homeowners. The results, estimated from cross-sectional and panel data using proportional and non-proportional hazard models, indicate that these effects are quite large. The empirical analysis also distinguishes between different regulatory regimes which govern the assumption of existing mortgages. Finally, the analysis indicates the substantial implications of the findings for the pricing and valuation of mortgage backed securities.

Quinn, Timothy H.

TI New Chemicals Regulation Under the Toxic Substances Control Act: Models for Policy Evaluation. AU Palmer, Adele R.; Quinn, Timothy H.

Radner, Roy

TI The Sealed-bid Mechanism for Bargaining with Incomplete Information. AU Leininger, Wolfgang; Linhart, Peter B.; Radner, Roy.

Rankin, Neil

PD January 1987. TI The Price, Output and Exchange Rate-Overshooting Effects of Monetary, Fiscal and Exchange Intervention Policy in a Two-Country Disequilibrium Model. AA Department of Economics, Queen Mary College, Mile End Road, London E1 4NS. SR Centre for Economic Policy Research Discussion Paper: 152; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 34. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 431, 023, 311, 321. KW Disequilibrium Model. Wage Rigidity. Exchange Rates. Exchange Intervention Policy. Monetary Policy. Fiscal Policy. Overshooting.

AB Monetary, fiscal and exchange intervention policy are examined in a symmetric, two-country, two-period model. Money wages are rigid in period one, causing unemployment. In each period there is a single world output, traded in a perfectly competitive world market. The exchange rate is flexible, and there is perfect capital mobility with perfect foresight. Aoki's method is used to obtain comparative static results, which include as special cases small open and closed economies. Whereas monetary policy effects in this model are consistent with the Mundell-Fleming-Dornbusch framework, fiscal policy always causes higher domestic output and a nominal depreciation, and may well lower foreign output.

PD January 1987. TI The Price, Output and Exchange Rate-Overshooting Effects of Monetary, Fiscal and Exchange Intervention Policy in a Two-Country Disequilibrium Model. AA Department of Economics, Queen Mary College. SR Centre for Economic Policy Research Discussion Paper: 152; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y

6LA, ENGLAND. PG 35. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 431, 311, 321, 131, 134. KW Disequilibrium Models. Wage Rigidity. Exchange Rates. Monetary Policy. Fiscal Policy. Exchange Intervention Policy. Overshooting.

AB Monetary, fiscal and exchange intervention policy are examined in a symmetric, two-country, two-period model. Money wages are rigid in period one, causing unemployment. In each period there is a single world output, traded in a perfectly competitive world market. The exchange rate is flexible, and there is perfect capital mobility with perfect foresight. Aoki's method is used to obtain comparative static results, which include as special cases small open and closed economies. Whereas monetary policy effects in this model are consistent with the Mundell-Fleming-Dornbusch framework, fiscal policy always causes higher domestic output and a nominal depreciation, and may well lower foreign output.

Rausser, Gordon C.

PD June 1985. TI Macroeconomic Environment for U.S. Agricultural Policy. AA Department of Agricultural and Resource Economics, University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 373; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 199. PR \$39.80. JE 713, 712, 714, 133, 023. KW Macroeconomics. United States Agricultural Policy. Domestic Monetary Policy. Exchange Rates. Agriculture.

AB Given the above perspective, a number of questions arise: (1) What are the major linkages between and among the macroeconomy, international economy, and agricultural economy and how can they be quantified? (2) What is the order of magnitude of effects of policy changes originating in agriculture, the macroeconomy, and the international economy on the three sectors after consideration of the direct, indirect, and feedback effects? (3) Given the importance of agriculture in the United States economy 'food products contribute approximately 20 percent to the weight of the consumer price index (CPI), what quantifiable role have commodity markets had on the path (inflationary or deflationary) of general economy wages and prices? (4) What is the differential impact of macroeconomic policies (fiscal and monetary) versus agricultural sector policies on the performance of the United States agricultural sector? (5) Should agricultural sector policies be conditional on shocks to macroeconomy and international economy emanating from United States fiscal and monetary policies? The present study will provide preliminary answers to the above questions. A principal constraint facing any empirical attempt to address these questions is the lack of sample data on flexible exchange rates and interest rates facing the United States agricultural sector. In the case of flexible exchange rates, approximately ten years of data are available; and in the case of truly flexible interest rates facing agriculture, only four years of data are available. In any event, an attempt to answer these questions begins with a literature review in Chapter 2 followed by specification of the macroeconomy, the international economy, and the agricultural sector economy in Chapter

3.

PD September 1985. TI The Food Marketing System: The Relevance of Economic Efficiency Measures. AU Rausser, Gordon C.; Perloff, Jeffrey M.; Zusman, Pinhas. AA Department of Agricultural and Resource Economics, University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 369; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 48. PR \$9.60. JE 715, 531. KW Food Marketing System. Economic Efficiency. Pareto Optimality. PERT. PEST. Benefit Cost Analysis.

AB In this paper, our purpose is to review and evaluate each of these two schools of thought in the context of the food-marketing system. In pursuit of this purpose, we must review a number of basic concepts. In essence, we will divide the set of potential problems that arise in food-marketing systems between those that admit an approximating first-best solution and those problems that do not. In the first instance, conventional welfare analysis will be advanced as providing the relevant criteria and appropriate constraints for the measurement of inefficiencies. In some cases, the standard efficiency calculus can be directly applied while, in other cases, it must be modified significantly. For the second subset of problems, nonconventional approaches to efficiency measurement must be advocated. In both instances, of course, a direct empirical analysis of economic efficiency of the foodmarketing system boils down essentially to a benefit-cost analysis.

PD October 1985. TI Agriculture, Trade, and Macroeconomics. AA Department of Agricultural and Resource Economics, University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 407; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 12. PR \$2.40. JE 713, 420, 023, 133. KW Macroeconomics. Agricultural Policy. United States. Agricultural Trade.

AB In the paper, "The Macroeconomics of Agriculture and Rural America," by Edward Schuh and David Orden, a "call to arms" is advanced for the agricultural economics profession. Consistent with the previous work of these authors, it is argued that macroeconomics should be studied and that it matters. Given the recent experience of United States agriculture, this argument is easy to accept. Schuh and Orden outline a number of possible channels by which the macroeconomy can impact on the United States agricultural sector. Unfortunately, no attempt has been made to distinguish between the various channels of interaction between the macroeconomy and the United States agricultural sector. Theoretical and empirical evidence on the relative ranking of importance among the various channels is not provided; nor is any attempt made to structure an analysis to determine the relative importance of the various channels. In essence, much of the paper is devoted to a survey of the reasons why macroeconomic and international factors affect agriculture. On the whole, the discussion is primarily a review of well-accepted factors. There are, however, some concerns expressed in the paper that have not been articulated in the agricultural economics literature. These include, inter

alia, the dual constraints on national policy; the export orientation of debtor countries; and the relative importance of capital mobility. The major issues addressed in the Schuh and Orden paper can be assessed and evaluated from a large number of perspectives. In what follows, I will collect and summarize my views on their paper in terms of (1) the state of the world facing United States agriculture, (2) alternative macroeconomic paradigms, (3) the relative importance of sector-specific versus macroeconomic policies on United States agriculture, (4) second-best policies, (5) capital flows, (6) partial versus general equilibrium analysis, and (7) the empirical results and concluding remarks.

TI The Effects of Monetary Policy on United States Agriculture. **AU** Chalfant, James A.; Love, H. Alan; Rausser, Gordon C.; Stamoulis, Kostas G.

PD February 1986. **TI** Macroeconomics, Overshooting, and the U. S. Agriculture Sector. **AU** Rausser, Gordon C.; Nishiyama, Yasuo; Stamoulis, Kostas G. **AA** Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 410; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 15. **PR** \$3.00. **JE** 713, 712, 131, 023. **KW** Macroeconomics. Overshooting. Agriculture. Exchange Rates.

AB An outline of a paper about the relation between macroeconomic overshooting and agriculture.

Ravi, N.

PD 1986. **TI** The Tolerance Approach to Sensitivity Analysis in Network Linear Programming. **AU** Ravi, N.; Wendell, Richard E. **AA** Ravi: Bell Communications Research. Wendell: Graduate School of Business, University of Pittsburgh. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8632; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. **PG** 23. **PR** No Charge. **JE** 213. **KW** Linear Programming. Networks. Tolerance.

AB The tolerance approach to sensitivity analysis, in contrast to classical sensitivity analysis, allows for simultaneous and independent perturbations of objective function coefficients and of right-hand-side terms from their original values. Here we specialize this approach to network problems. The specialization yields streamlined results in that the computations can be performed directly on a network.

Rea, Jr Samuel A.

PD September 1986. **TI** Economic Analysis of Fault and No-Fault Liability Systems. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8613; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 42. **PR** No Charge. **JE** 916, 921, 615. **KW** Tort Law. Law. No-Fault Compensation. Incentives. Insurance Costs. Automobile Insurance.

AB This study analyzes the economic implications of fault and no-fault systems. The primary justification for a

system of compensation based on negligence is to provide incentives for care and to discourage excessive levels of risky activity. The current system provides imperfect incentives and imperfect insurance. A no-fault system would reduce incentives for care but would provide more complete insurance with a lower administrative cost. Unfortunately, it might lead to exaggerated losses and excessive insurance costs if improperly designed. The study reviews available evidence on existing no-fault automobile insurance systems in the United States, New Zealand, Quebec, Manitoba and Saskatchewan. Quebec has the most complete no-fault automobile insurance system in North America. A recent study by Gaudry found that deaths in Quebec increased 6.8 percent and (reported) accidents increased 17 per cent because of the introduction of a no-fault insurance system in 1978. The choice between fault and no-fault systems involves a tradeoff between more complete insurance coverage at a lower administrative cost and a greater number of accidents.

TI Unemployment Insurance and Male Unemployment Duration in Canada. **AU** Ham, John C.; Rea, Jr Samuel A.

Reinhart, Vincent

PD August 1986. **TI** A Small Sample Test of Structural Homogeneity. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8608; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PR** No Charge. **JE** 211. **KW** Structural Homogeneity. Stability Testing. Structural Stability.

AB We derive an exact, small sample test for the reliability of individual coefficients in the general linear model. Under the hypothesis of structural stability the residuals will be uncorrelated with any explanatory variable. Within sample that holds by the arithmetic of least squares and out-of-sample in terms of expected values. We establish a test based on this property by showing that the coefficient of the regression of the explanatory variable on the post-estimation prediction errors follows a t-distribution.

Reishus, David

TI The Effects of Taxation on the Merger Decision. **AU** Auerbach, Alan; Reishus, David.

Remolona, Eli M.

PD December 1986. **TI** Loan Swaps and the LDC Debt Problem. **AU** Remolona, Eli M.; Roberts, David L. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8615; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 50. **PR** No Charge. **JE** 441, 443, 433, 121. **KW** Loan Swaps. LDC's. Debt Rescheduling. Flight Capital. External Debt. New Money.

AB Loan swaps can ease debt problems of some LDCs but only under certain limited circumstances. Debt-debt swaps between outside creditors can marginally ease the rescheduling process by shifting exposure to banks more willing to participate in new lending. However, these

swaps complicate the assignment of responsibility for new money. Debt-equity and debt-peso swaps involving conversion into local equity or currency can help but only if they attract enough additional foreign equity investment or cause a return of enough flight capital. Without this "additionality," the advantage in substituting equity for debt is slight. The conversions have two major drawbacks: (a) they rely on preferential exchange rates which may misallocate foreign capital; and (b) they earmark foreign exchange to repayment of external debt. Prices of LDC debt in the secondary market are a poor guide to the value of loans remaining in banks' books. The prices are driven as much by disagreement among banks over rescheduling as by fundamentals of repayment prospects.

Renault, E.

TI Testing for Common Roots. AU Gourieroux, G.; Monfort, A.; Renault, E.

Rieder, Jorg

PD February 1986. TI On k -Tuple-Colorings of Graphs. AA University of Cologne. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86.29; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 16. PR No Charge. JE 213. KW Colorings. Graphs. k -Tuple-Coloring.

AB This paper deals with (k, i) -colorings of graphs as introduced by Brigham and Dutton in as a generalization of Stahl's k -tuple-coloring. A (k, i) -coloring is a generalized vertex coloring of a graph. A set of k colors is assigned to each vertex in such a way that any two adjacent vertices have exactly i colors in common. We will investigate the minimum number of colors required for (k, i) -colorings of wheels. In addition, we will give some counter-examples for a monotony-conjecture.

Riordan, Michael H.

PD September 1986. TI Awarding Monopoly Franchises. AU Riordan, Michael H.; Sappington, David E. M. AA Riordan: Stanford University. Sappington: Bell Communications Research. SR Bell Communications Research Incorporated Economics Discussion Paper: 13; Bell Communications Research, Incorporated, 435 South Street, Morristown, N.J. 07960-1961. PG 23. PR No Charge. JE 612, 613, 026. KW Regulation. Monopoly Franchise. Bid. Franchise Contract.

AB We analyze a regulator's problem of designing a contract for a monopoly franchise, and choosing the monopoly producer. The regulator's objective is to maximize expected consumers' surplus net of transfers to the producer. The regulatory environment we consider is one in which each potential producer possesses independent private information about uncertain production costs. Realized production costs are subsequently observed only by the firm that is awarded the franchise. We find that the regulator optimally induces production levels that are inefficient ex post in order to foster more competitive bidding ex ante. The distortions for any bid-cost pair are invariant to the number of bidders (n), though expected distortions and profits for the high bidder decline with n . For finite n , the producer earns positive expected rents.

TI On Governing Multilateral Transactions with Bilateral Contracts. AU Cremer, Jacques; Riordan, Michael H.

Roberts, David L.

TI Loan Swaps and the LDC Debt Problem. AU Remolona, Eli M.; Roberts, David L.

Robinson, Sherman

TI Income Distribution and Development: A Survey. AU Adelman, Irma; Robinson, Sherman.

Roderick, Dani

PD March 1987. TI Imperfect Competition, Scale Economies, and Trade Policy in Developing Countries. AA John F. Kennedy School of Government, Harvard University. SR Harvard John F. Kennedy School of Government Discussion Paper: 158D; John F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. PG 50. PR No Charge. JE 411, 421, 422, 611, 022, 121. KW Trade Policy. Imperfect Competition. Economies of Scale. LDCs. Turkey. Trade Liberalization.

AB The "new" trade theory, with its emphasis on imperfect competition and scale economies, has developed against the background of trade conflicts among developed countries. This paper argues that market imperfections of the sort analyzed in this context are, if anything, more serious in the developing countries. The paper starts with an overview of the salient aspects of market structure and conduct in the LDCs and then addresses the following question: to what extent does the presence of increasing returns and imperfect competition at home alter the received wisdom on the benefits of trade liberalization? The analysis is carried out in two steps. First, a general-equilibrium framework is developed in which the sources of potential gains/losses from partial trade liberalization can be assessed in the presence of imperfect competition. It is concluded that while oligopolistic profits per se do not alter much our notions about the desirable direction of resource pulls, the presence of significant scale economies may clash seriously with the objective of contracting protected sectors. In the second stage of the analysis, partial-equilibrium numerical simulations are carried out using data for some Turkish industries. Partial trade liberalization turns out to be welfare-increasing in all but the least protected industries.

Roemer, John E.

PD March 13, 1987. TI Social Choice in Economic Environments with Dimensional Variation. AU Roemer, John E.; Donaldson, David. AA Roemer: University of California at Davis. Donaldson: University of British Columbia. SR University of California at Davis Economics Department Working Paper: 289; Department of Economics, University of California at Davis, Davis, CA 95616. PG 53. PR No Charge. JE 025, 022. KW Social Choice. Economic Environments. Independence Axiom. Information. Concave Extension Theorem.

AB Social choice theory is done on a domain of economic environments. The independence axiom is replaced with an axiom enforcing consistency of the social choice rule as

the dimension of the commodity space varies. The principal characterization results are derived with different informational assumptions. The analysis uses Howe's recent concave extension theorem.

Roland, Holst David Wells

TI Adjustment Under Uncertainty with Computable General Equilibrium Models. AU Adelman, Irma; Sarris, Alexander H.; Roland, Holst David Wells.

Rolin, J. M.

TI Non-Causality and Marginal Markov Processes. AU Florens, J. P.; Mouchart, M.; Rolin, J. M.

Rolph, John E.

TI Limiting Liability for Automobile Accidents: Are No-Fault Tort Thresholds Effective? AU Hammitt, James K.; Rolph, John E.

Romer, Christina D.

PD March 1987. TI Gross National Product, 1909-1928: Existing Estimates, New Estimates, and New Interpretations of World War I and Its Aftermath. AA Woodrow Wilson School, Princeton University. SR National Bureau of Economic Research Working Paper: 2187; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 221, 042, 023, 131. KW Gross National Product. World War I. Depression. Gross National Product Revisions. United States. Recession. GNP.

AB The paper examines the official Commerce Department estimates of gross national product for 1909-1928 and finds that they are far inferior to the less commonly used Kendrick GNP estimates. The paper then derives a revised version of the Kendrick series that alters significantly the representation of annual movements in the Kendrick series before 1919. This endorsement of a revised Kendrick GNP series in place of the official Commerce Department estimates before 1929 suggests new interpretations of the effect of World War I on the American economy and the nature and cause of the depression of 1921.

Rosen, Harvey

TI The Revenues-Expenditures Nexus: Evidence from Local Government Data. AU Holtz, Eakin Douglas; Newey, Whitney; Rosen, Harvey.

Rosen, Sherwin

PD September 1986. TI Easy Animal Economics. AA University of Chicago and Hoover Institution. SR Economics Research Center/NORC Discussion Paper: 87-2; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. PG 31. PR No Charge. JE 711, 716, 512, 631. KW Backward Bending Supply. Cobweb. Cattle Cycles. Rational Expectations Equilibrium. Hogs. Farm Animals.

AB The market equilibrium consequences of optimal herd-inventory management are worked out for farm animal populations. A permanent change in demand implies backward-bending short-run and elastic long-run supply responses, but transitory changes imply the usual

rising supply price response. Furthermore, increasing inventories are associated with high and falling prices and conversely for decreasing inventories, but there is no market instability in this. These unusual intertemporal substitution effects follow from both rational expectations and appropriately formulated cobweb theories and go part way toward explaining the marked cyclical patterns observed in hog and cattle inventories.

Rosenzweig, Mark R.

PD February 1987. TI Fertility and Investments in Human Capital: Estimates of the Consequences of Imperfect Fertility Control in Malaysia. AU Rosenzweig, Mark R.; Schultz, T. Paul. AA Rosenzweig: University of Minnesota, Department of Economics. Schultz: Economic Growth Center, Yale University. SR University of Minnesota Economic Development Center Bulletin: 87-1; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. PG 36. PR Free. JE 851, 841, 913, 914, 121. KW Fertility. Human Capital. Malaysia.

AB In this paper, we describe and utilize methods to estimate the consequences for children's schooling and birthweight of the exogenous variability in the supply of births in one low income country, Malaysia. The method utilizes information on contraceptive techniques employed by couples to estimate directly the technology of reproduction and provides a means of disentangling the biological and demand factors that contribute to the variation in fertility across couples under a regime of imperfect fertility control. Our results suggest that imperfect fertility control significantly influences both the average schooling attainment and birthweight of children in Malaysia, with couples having above-average propensities to conceive reporting higher levels of actual fertility, significantly lower expectations of and actual schooling attainment for their children, and lower birthweight children, on average, due to smaller intervals between births.

Ross, Hermann

PD 1985. TI Bonn-IIASA World Model. A Data Base for Nine OECD Countries. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-28; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 21. PR No Charge. JE 132, 212, 122, 111, 220. KW Economic Growth. Structural Change. OECD. Database. World Model. Macroeconomic Models. Multicountry Model.

AB One part of the analysis within the joint Bonn - IIASA project on "Economic Growth and Structural Change" deals with the construction of aggregated econometric models for the nine most important OECD countries. According to the latest research plan (1) a data base has been built up for each of these countries, containing the required time series. The figures of these time series will not always be as exact as normally required for national short and medium term econometric models; we extracted the data from sources in which the time series are already published in a comparable manner, i.e. we used statistics of the OECD, the International Monetary

Fund, the United Nations Organisation and the ILO; slight errors might have occurred by splicing together fractions of time series with factors derived from overlapping years, by converting time series given in United States-dollars into national currencies or by using different sources; for the latest years there might be discrepancies between the most actual reports of the national statistical bureaus and our figures (2). But hopefully this will not affect the usefulness of the data for the analysis of longer term relations in the nine economies. This paper gives a general survey of the data base. Detailed informations are separately reported in nine country specific documentations. They contain 1. The definitional equations for the generation of the time series 2. A listing of the original timeseries extracted from the different sources 3. The abbreviations used 4. The data base for the period 1960 - 1982 5. The data of longer series for the period 1950 - 1982 6. An alphabetical list of the timeseries in the data base 7. A list of the time series in the data base, in the same ordering as the listing of the equations and the listing of the data.

PD 1985. TI Results of the Central Group; OECD Country Models. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-31; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 17. PR No Charge. JE 132, 212, 122, 123, 621. KW Econometric Model. Technical Progress. OECD. World Model. Multicountry Model.

AB In the central group of the research project we are going to construct a number of econometric models, following the lines of the research plan. These models deal with the main streams of the economic development process of single countries or artificial units defined by aggregation over a group of countries. All models will be linked together to form a large model, which one can call a world model. My object in this work are the economies of nine major OECD countries and one artificial economy defined by aggregation over eleven other industrialized market economies. The selection of the countries based mainly on their importance to world trade in the end of the seventies. The work of this year consisted mainly in establishing a database for the models and the specification and estimation of the model equations. In this context much effort was put into considerations on the role of technical progress.

PD 1985. TI Bonn-IIASA World Model. The Data Base for the United States of America. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-29; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 26. PR No Charge. JE 132, 212, 122, 111, 220. KW Econometric Model. United States. Database. World Model. Multicountry Model.

AB This paper documents the data base for the United States of America as it has been built up until March 25th, 1985 (c.f. (1) for a general description). Its purpose is to serve as a base for the research work within the joint Bonn - IIASA research project "Economic Growth and Structural Change" (2). This paper contains: 1. The definitional equations for the generation of the time series

2. The names of the original time series extracted from the different sources (referred to in 1.) 3. The abbreviations used 4. The basic data for 1960 - 1982 5. The data of the longer series for 1950 - 1982 6. An alphabetical list of the time series in the data base 7. A list of the time series in the data base, in the same ordering as the listing of the equations and the listing of the basic data, part 1. and part 4.

TI Economic Structural Change. The Bonn IIASA Research Project: Theoretical Background and Actual State. AU Krelle, W.; Dobrinsky, R.; Gajda, J.; Ross, H.; Szekely, I.; Welsch, H.

PD August 1986. TI Zur Wegunabhängigkeit von Divisia - Indizes. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-62; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 15. PR No Charge. JE 211. KW Path Independence of Divisia Indices. Quantity Aggregation. Price Aggregation. Divisia Index Numbers. AB (In German).

Rumpel, J. David

TI The Demand for Episodes of Mental Health Services. AU Keeler, Emmett B.; Wells, Kenneth B.; Manning, Willard G.; Rumpel, J. David; Hanley, Janet M.

TI The Demand for Episodes of Mental Health Services. AU Keeler, Emmett B.; Wells, Kenneth B.; Manning, Willard G.; Rumpel, J. David; Hanley, Janet M.

Runkle, David E.

PD February 1987. TI Vector Autoregressions and Reality. AA Research Department, Federal Reserve Bank of Minneapolis. SR Federal Reserve Bank of Minneapolis: 107; Federal Reserve Bank of Minneapolis 250 Marquette Avenue Minneapolis, MN 55480. PG 19. PR No Charge. JE 211, 311. KW Time Series. Vector Autoregressions. Monetary Policy. Impulse Response Functions. Variance Decomposition. VAR.

AB The statistical significance of variance decompositions and impulse response functions for unrestricted vector autoregressions is questionable. Most previous studies are suspect because they have not provided confidence intervals for variance decompositions and impulse response functions. Here two methods of computing such intervals are developed, one using a normal approximation, the other using bootstrapped resampling. An example from Sims' work illustrates the importance of computing these confidence intervals. In the example, the 95 percent confidence intervals for variance decompositions span up to 66 percentage points at the usual forecasting horizon.

Ruttan, Vernon W.

PD February 1987. TI Why Foreign Economic Assistance? AA Department of Agricultural and Applied Economics, University of Minnesota. SR University of Minnesota Economic Development Center Bulletin: 87-2; Department of Agricultural and Applied Economics, 231 Classroom Office Building, University of Minnesota, Saint Paul, MN 55108. PG 29. PR free. JE 443, 110.

KW Ethical Responsibility. Entitlement. Distributive Justice. Economic Development. Donor Interest. Strategic Interest. Foreign Aid. Development Assistance.

AB This paper attempts to evaluate the several donor self-interest and ethical or moral responsibility arguments for and against foreign economic assistance. The donor self-interest arguments stress economic and strategic interests. Ethical arguments involve considerations of entitlement and distributive justice. It is argued that increased interdependence has resulted in an implicit global contract that extends the moral bases for social or distributive justice to the international sphere. But the contractorian argument can not stand by itself. Assistance must also be evaluated in terms of the consequences of development assistance for economic welfare in donor and recipient countries.

Ruud, Paul A.

TI Specifying and Testing Econometric Models for Rank-Ordered Data with an Application to the Demand for Mobile and Portable Telephones. **AU** Hausman, Jerry A.; Ruud, Paul A.

Sachs, Jeffrey D.

TI Institutional Aspects of High Unemployment in the Federal Republic of Germany. **AU** Burda, Michael C.; Sachs, Jeffrey D.

Sadoulet, Elisabeth

TI The Conditions for Compatibility Between Aid and Trade in Agriculture. **AU** de Janvry, Alain; Sadoulet, Elisabeth.

TI A Study in Resistance to Institutional Change: the Lost Game of Latin American Land Reform. **AU** de Janvry, Alain; Sadoulet, Elisabeth.

Saghafi, Massoud M.

PD January 1987. **TI** Product Line Pricing Under Firm-Specific Objectives. **AA** University of Southern California and Drake University. **SR** University of Southern California Modelling Research Group Working Paper: M8702; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 24. **PR** No Charge. **JE** 531, 512, 513. **KW** Product Line Pricing. Complementary Good Pricing. Substitute Good Pricing. Product Lines. Firm Objectives.

AB Product line pricing is one of the most important challenges facing practitioners. Product lines should be optimally priced to satisfy the tactical and strategic objectives of the firm. In spite of its vital importance, the academic literature on optimum product-line pricing is conspicuously limited, and what is available rests on special assumptions about the objectives of firms, the cost structure of companies, and the demand for products that limits the power of the results. This paper attempts to provide a more comprehensive and in-depth study of product-line pricing and to suggest means of formulating a systematic approach to this important problem.

PD January 1987. **TI** International Trade and Welfare in the Absence of Free Trade: Trade Impediments Can Benefit All. **AA** University of Southern California,

Drake University. **SR** University of Southern California Modelling Research Group Working Paper: M8705; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 36. **PR** No Charge. **JE** 411, 421, 422. **KW** Trade Barriers. Global Welfare. Trade Intermediaries. Free Trade.

AB In this essay, a simple model of international trade is presented with the trade flows completely aborted between two of the three agents in the world. Due to the trade impediment, one agent will emerge as the sole trade intermediary who can "double optimize" by getting the best deal out of both sellers and buyers of products. It is shown that collusions of agents can be formed to improve regional welfare (the welfare of both agents in the region) and hurt the well being of the third trading party. More importantly, it is shown that in the presence of taxation and welfare distribution policies, all three agents can benefit (welfare levels of all three agents will rise) from the trade impediment. This obviously implies the existence of circumstances in which trade barriers are beneficial and are preferred to free trade situations. Finally, the importance of the "order" of trade and exchange is studied and the different "incentive" strategies for trade are investigated.

Salehi, Isfahani Djavad

PD January 1987. **TI** Testing OPEC Behavior: Further Results. **AA** Virginia Polytechnic Institute and State University. **SR** Virginia Polytechnic Institute and State University Working Paper in Economics: E87-01-02; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. **PG** 14. **PR** Free by Request. **JE** 611, 632, 723, 721, 212. **KW** Oil Market. OPEC. Cartel Theory. Competitive Model.

AB This note challenges the results of Griffin's (1985) empirical test of the alternative theories of the oil market in which he finds that whereas the cartel theory generally fits the data well, the alternatives do not. It is shown here that at least in one case -- the competitive model of Cremer and Salehi-Isfahani (1980) -- Griffin's test was based on a misspecified regression equation. Marginal improvements in his regression equation which do not require new data change his results significantly, and in favor of our hypothesis. The results presented in this paper show that, given Griffin's framework, the competitive model fits the data at least as well as the cartel theory.

Samuelson, William

TI Can People Compute? An Experimental Test of the Life Cycle Consumption Model. **AU** Johnson, Stephen; Kotlikoff, Laurence; Samuelson, William.

Santomero, Anthony M.

TI Portfolio and Transactions Demand for Money Under Price Uncertainty. **AU** Mizrach, Bruce; Santomero, Anthony M.

Sappington, David E. M.

PD January 1986. **TI** Information and Regulation. **AU** Sappington, David E. M.; Stiglitz, Joseph E. **AA** Sappington: Bell Communications Research. Stiglitz: Princeton University. **SR** Bell Communications

Research Incorporated Economics Discussion Paper: 14; Bell Communications Research, Incorporated, 435 South Street, Morristown, N.J. 07960-1961. PG 51. PR No Charge. JE 613, 026. KW Regulatory Control. Limited Information.

AB The purpose of this paper is two-fold. First, we present an overview of how problems of limited information affect the government's ability to exercise control through a variety of institutions. Second, we review the literature on one particular form of control, i.e., regulation. We explain the particular problems that limited information poses for a regulator, and explore the proposed solutions to the problems.

TI Profiting from "Countervailing" Power: An Effect of Government Control. AU Adams, William James; Sappington, David E. M.

PD July 1986. **TI** Commitment to Regulatory Bureaucracy. **AA** Bell Communications Research, Incorporated. **SR** Bell Communications Research Incorporated Economics Discussion Paper: 17; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 23. PR No Charge. JE 613, 611, 612. KW Regulation. Regulated Firm. Binding Commitments.

AB A model is considered in which "regulatory bureaucracy" is in the best interests of consumers as well as the regulated firm. Making it more costly for the regulator to discern the firm's true costs can help motivate the firm to act in the interests of consumers. But this is only the case if the regulator cannot make binding commitments concerning the use of his policy instruments. Endowed with the ability to precommit, the regulator will dispense with regulatory bureaucracy, set prices below marginal cost, and induce investment in excess of efficient levels.

TI Hierarchical Regulatory Control. AU Demski, Joel S.; Sappington, David E. M.

TI On the Timing of Information Release. AU Demski, Joel S.; Sappington, David E. M.

TI Awarding Monopoly Franchises. AU Riordan, Michael H.; Sappington, David E. M.

PD March 1987. **TI** Privatization, Information and Incentives. AU Sappington, David E. M.; Stiglitz, Joseph E. **AA** Sappington: Bell Communications Research. Stiglitz: Princeton University. **SR** National Bureau of Economic Research Working Paper: 2196; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 614, 613, 022, 611, 511, 514. KW Public Provision of Goods. Private Provision of Goods. Delegation of Authority. Public Ownership.

AB In this paper, the choice between public and private provision of goods and services is considered. In practice, both modes of operation involve significant delegation of authority, and thus appear quite similar in some respects. The argument here is that the main difference between the two modes concerns the transactions costs faced by the government when attempting to intervene in the delegated production activities. Such intervention is generally less costly under public ownership than under private ownership. The greater ease of intervention under public

ownership can have its advantages; but the fact that a promise not to intervene is more credible under private production can also have beneficial incentive effects. The Fundamental Privatization Theorem (analogous to The Fundamental Theorem of Welfare Economics) is presented, providing conditions under which government production cannot improve upon private production. The restrictiveness of these conditions is evaluated.

Sarris, Alexander H.

TI Adjustment Under Uncertainty with Computable General Equilibrium Models. AU Adelman, Irma; Sarris, Alexander H.; Roland, Holst David Wells.

Sato, Kazuo

TI An Autonomous Growth Path for Latin America: Investment, Saving, and the Demand for Capital Imports. AU Leff, Nathaniel H.; Sato, Kasuo.

Schank, John

TI The Changing Balance - South and North Korean Capabilities for Long-Term Military Competition. AU Wolf, Charles; Henry, Donald P.; Yeh, K. C.; Hayes, James H.; Schank, John; Sneider, Richard L.

TI The Changing Balance - South and North Korean Capabilities for Long-Term Military Competition. AU Wolf, Charles; Henry, Donald P.; Yeh, K. C.; Hayes, James H.; Schank, John; Sneider, Richard L.

Schonfeld, Peter

PD July 1986. **TI** Constrained Multidimensional Scaling. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-43; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 25. PR No Charge. JE 211, 212. KW Sequential Scaling. MDS. Multidimensional Scaling. **AB** In recent years considerable progress has been made in constrained multidimensional scaling. The use of a priori constraints appears particularly fruitful in econometric applications. This paper surveys various approaches of formulating and implementing constraints in MDS. The survey includes results reported in recent literature as well as contributions of the Bonn research project on MDS to the problem of sequential scaling.

Schroder, Jurgen

PD March 1987. **TI** International Risk and Exchange Rate Overshooting. **AA** University of Mannheim and Hoover Institution, Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-87-10; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PR No Charge. JE 431, 441, 311, 131, 023. KW International Risk. Exchange Rate. Overshooting. Interest Rates. Prices. Risky Assets. Monetary Policy. Risk Premium.

AB This paper deals with the short and long run effects of a change in the international risk premium on the exchange rate, the domestic interest rate, and the domestic price level. It is shown that how these macroeconomic variables are affected depends crucially on the assumption

about which assets become riskier to which group of asset holders. Three cases are discussed and compared. In case one the holding of domestic interest bearing assets becomes riskier only to international investors. In case two the holding of these assets becomes riskier to both groups, international investors and national transactors. In case three it is assumed that the holding of all domestic assets becomes riskier to both groups of wealth holders. Under the plausible assumption that asset markets clear faster than commodity markets it is shown that in cases one and three an offsetting monetary policy is necessary in order to avoid real exchange rate fluctuations caused by changes in the international risk premium. The necessary monetary policy is accomplished automatically if the monetary authority stabilises the exchange rate without neutralizing the monetary effects of its foreign exchange market interventions. However, in case two, no offsetting monetary policy is necessary. In this case the domestic interest rate adjusts instantaneously to the change in the international risk premium and both the exchange rate, and the domestic price level, stay constant.

Schultz, T. Paul

TI Fertility and Investments in Human Capital: Estimates of the Consequences of Imperfect Fertility Control in Malaysia. AU Rosenzweig, Mark R.; Schultz, T. Paul.

Schurger, Klaus

PD November 1985. TI A Limit Theorem for Almost Monotonic Sequences of Random Variables. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-7; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 18. PR No Charge. JE 211. KW Monotone Sequences. Random Variables. Limit Theorem. AB This paper describes a limit theorem for almost monotone sequences of random variables.

Schworm, William

TI Testing for the Existence of Input Aggregates in an Economy Production Function. AU Blackorby, Charles; Schworm, William; Fisher, Timothy.

TI Necessary and Sufficient Conditions for Factor Price Equalization. AU Blackorby, Charles; Schworm, William; Venables, Anthony.

Sebo, Andras

TI Total Dual Integrality Implies Local Strong Unimodularity. AU Gerards, Albertus M. H.; Sebo, Andras.

Serfling, R.

TI Strong Uniform Consistency Rates for Estimators of Conditional Functionals. AU Hardle, W.; Janssen, P.; Serfling, R.

Shack, Marquez Janice

TI Financial Concentration and Development: An Empirical Analysis of the Venezuelan Case. AU Marquez, Jaime; Shack, Marquez Janice.

Shaffer, Sherrill

PD November 1986. TI Economies of Superscale and Interstate Expansion. AU Shaffer, Sherrill; David, Edmond. AA Federal Reserve Bank of New York. SR Federal Reserve Bank of New York Research Paper: 8612; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. PR No Charge. JE 312, 610. KW Scale Economies. Banking. Interstate Banking. Hedonic Cost Function. Commercial Banks.

AB Most previous studies of scale economies in banking have excluded banks larger than \$1 billion in assets. This study, by contrast, estimates cost functions for the 100 largest United States commercial banks. "Hedonic" terms are incorporated to correct for the aggregated nature of the Call Report data available for these banks. In addition, we attempt to quantify the cost benefit of diversification in the model. We estimate efficient bank scale to range from \$15 billion to \$37 billion in total assets, a thousand fold increase over some previous findings. These results are supported by comparison of actual average costs, as well as by casual historical observation and the level of widespread concern over interstate banking. Our findings suggest some cost incentive or benefit to expansion or consolidation among large regional banks, including interstate expansion or consolidation.

Shapiro, Matthew D.

PD February 1987. TI Supply Shocks in Macroeconomics. AA Cowles Foundation, Yale University. SR National Bureau of Economic Research Working Paper: 2146; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 131, 023. KW Supply Shock. Macroeconomic Fluctuation. Business Cycle.

AB Supply shocks played an important role in macroeconomic fluctuations during the 1970's. Supply shocks are also increasingly important in Keynesian and neo-classical models of the business cycle. This paper is a short survey of these theoretical models. It also discusses the history of supply shocks in recent business cycles.

PD April 1987. TI Measuring Market Power in United States Industry. AA Yale University and National Bureau of Economic Research. SR Yale Cowles Foundation Discussion Paper: 828; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 36. PR No Charge. JE 611, 022, 212. KW Market Power. Markup. Lerner Index. Elasticities. Monopoly Power. Instrumental Variables.

AB Non-competitive conduct can be assessed by estimating the size of the markup or Lerner index achieved in a market. The markup implies a price elasticity of demand faced by the representative firm. For a given markup, non-competitive conduct is greater the more elastic is the market elasticity of demand. The ratio of the firm's to the market elasticity is a measure of non-competitive conduct that is insensitive to the value of the monopoly. To implement this measure, both the firm's and the market elasticities of demand must be estimated. Hall shows how to estimate the markup, and hence the elasticity faced by the firm, from the cyclical behavior of productivity. To estimate the market elasticity, an

instrumental variables procedure exploiting a covariance restriction between productivity shocks and demand shocks is used. Results for broad sectors of private industry and for non-durable manufacturing industries display a wide range of monopoly power.

Sharkey, William W.

PD August 1986. TI A Game Theoretic Analysis of Competition Among Political Interest Groups. AA Bell Communications Research, Incorporated. SR Bell Communication Research Incorporated Economics Discussion Paper: 21; Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 24. PR No Charge. JE 026, 025. KW Cooperative Games. Political Interest Groups. Coalition. Aspiration Core.

AB This paper uses cooperative game theoretic tools to model the competition among political interest groups. Players are interest groups who are assumed to have preferences over a policy space of finite dimension. Coalitions of players are either winning, blocking, or losing. Winning coalitions can choose the policy outcome if they are able to form, while blocking coalitions can only enforce the status quo. The restrictive conditions which are necessary for a nonempty core are reviewed in this context. Then it is argued that a core-like solution known as the aspiration core appropriately models the competition among coalitions. It is shown that the aspiration core is always nonempty.

Sharpe, Steven A.

PD January 1987. TI Price Rigidity In Imperfectly Competitive Markets: A Survey of Theoretical Approaches. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 203; C/O Francis X. Diebold, Mail Stop 180, Federal Reserve Board, Washington, DC 20551. PG 22. PR No Charge. JE 131, 134, 023, 227. KW Price Adjustment. Sticky prices. Price Rigidity.

AB The role of wage and price adjustment continues to be a central focus in macroeconomic research, teaching, and policy debates. Macroeconomic theories of sluggish price adjustment often appeal to the microeconomic structure of markets and information as a theoretical justification for such price behavior. In this paper, we discuss, compare, and criticize various recent microeconomic models of price adjustment in imperfectly competitive product markets.

PD February 3, 1987. TI Experience Goods, Customer Loyalty, and Sticky Prices in a Dynamic Market. AA Board of Governors of the Federal Reserve System. SR Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 202; C/O Francis X. Diebold, Mail Stop 180, Federal Reserve Board, Washington, DC 20551. PG 49. PR No Charge. JE 022, 611, 131. KW Sticky Prices. Experiences Goods. Rigidity. Customer markets. Monopolistic Competition. Asymmetric Information. Quality of Goods.

AB This paper develops a dynamic theory of monopolistic competition in which each firm's price strategy is a function of previous quantities sold and the number of consumers expected to visit. The model

demonstrates one reason why prices may be sticky in response to unfavorable demand shocks. It departs from previous literature by showing that sluggish prices may be an explicit equilibrium outcome of rational behavior on the part of both consumers and non-colluding firms. Temporary market power is generated by asymmetric information; specifically, product quality is an "experience" attribute, only observable upon consumption. Due to a continual flow of new consumers into the market, high quality firms are visited by both informed and uninformed customers. This creates a tension, between the choice of charging a low price and building market share, or charging a high price and capturing the surplus of "loyal" consumers. In some cases, prices are sluggish because firms choose to exploit temporary market power in periods of unanticipated low demand.

Sheffrin, Steven M.

TI Unemployment Durations Over the Business Cycle. AU Dynarski, Mark; Sheffrin, Steven M.

Shiller, Robert J.

TI Cointegration and Tests of Present Value Models. AU Campbell, John Y.; Shiller, Robert J.

Shoven, John B.

PD May 1987. TI Share Repurchases and Acquisitions: An Analysis of Which Firms Participate. AU Shoven, John B.; Simon, Laurie Blair. AA Stanford University. SR National Bureau of Economic Research Working Paper: 2243; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 521, 313. KW Takeovers. Dividends. Share Purchases. Shareholders. Nondividend Payments.

AB Firms can transmit cash to shareholders either by paying dividends or by purchasing shares. The share purchases can be either the firm's own securities or those of another firm. Recent evidence suggests that there has been a dramatic increase in the use of these nondividend payments to shareholders. This paper reviews the theories which have been offered regarding the motivation of nondividend payments. These include taxation advantages, adjustment towards optimal debt-equity ratios, anti-takeover strategies, free cash flow (agency) considerations, signalling, and habit formation or learning. From these theories, we derive and investigate econometrically potential characteristics which predict participation in the above actions for roughly 2,000 firms in 1976 and 1984. We find the variables suggested by the various hypotheses collectively have substantial power in predicting participation in share repurchase and acquisitions. The free cash flow and habit forming arguments prove most consistent with our findings. Tests for structural change across time confirm an intercept shift consistent with dramatic increases in these activities, and fail to reject that the characteristic determinants of these actions are unchanged.

Shubik, Martin

PD March 1987. TI Game Theory Models of Strategic Behavior and Nuclear Deterrence. AA Yale University. SR Yale Cowles Foundation Discussion Paper: 829;

Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 97. PR No Charge. JE 026, 114. KW Game Theory. Nuclear Deterrence. Arms Race. Escalation. Retaliation. Threat.

AB This essay offers an exposition of the potential uses of game theoretic reasoning and mathematical models in the study of the prevention of nuclear war.

Sibley, David S.

TI Delegation and Transfer Pricing in a Principal-Agent Model. AU Besanko, David; Sibley, David S.

Simon, Laurie Blair

TI Share Repurchases and Acquisitions: An Analysis of Which Firms Participate. AU Shoven, John B.; Simon, Laurie Blair.

Simon, Leo K.

PD July 1986. TI Extensive Form Games in Continuous Time Part I: Pure Strategies. AU Simon, Leo K.; Stinchcombe, Maxwell. AA Department of Economics, University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8607; Department of Economics, University of California at Berkeley, Berkeley, CA 94720. PG 57. PR \$3.50. JE 026. KW Game Theory. Continuous Time. Subgame Perfection. Discrete Time.

AB This paper develops a new framework for modelling games in continuous time. We view continuous time as "discrete time, but with a grid that is arbitrarily fine." We define a class of continuous-time strategies and restrict them to an arbitrary, increasingly fine sequence of discrete-time grids. Our assumptions guarantee that this process generates a convergent sequence of outcomes, whose limit is independent of the sequence of grids. Our outcome function maps each strategy profile to its associated limit outcome. We compare the perfect equilibria of our model to the approximate equilibria of "nearby" discrete-time games. If the restrictions to discrete-time grids of our continuous-time strategies are approximate equilibria, then the strategies themselves are exact equilibria. Moreover, under weak conditions, any perfect equilibrium of our model is close to an approximate perfect equilibrium for any "nearby" discrete-time model.

Singh, Radhey S.

TI Nonparametric Recursive Estimation of a Multivariate, Marginal and Conditional DGP with an Application to Specification of Econometric Models. AU Ullah, Aman; Singh, Radhey S.

Smith, Alasdair

PD September 1986. TI Strategic Investment, Multinational Corporations and Trade Policy. AA School of European Studies, University of Sussex, Brighton. SR Centre for Economic Policy Research Discussion Paper: 137; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 441, 422, 611, 421. KW Strategic Investment.

Multinational Corporations. Entry Deterrence. Trade Policy. Foreign Direct Investment. Tariffs.

AB This paper presents a model of the multinational corporation focusing on a foreign firm which wishes to operate in a particular country. The firm must choose between direct investment and production in the country and production of the product elsewhere, followed by its export into the country concerned. The paper considers how government policy may influence this choice. Foreign direct investment may serve as a deterrent to entry, in the style of Dixit (1980). The effects of trade policy on foreign direct investment are very different in this oligopolistic model than in a competitive model. Depending on the nature of the oligopolistic equilibrium, tariffs may or may not induce foreign direct investment, they may or may not change the market structure, and they may have pro- or anti-competitive effects. In particular, it is possible for a tariff to deter foreign direct investment, contrary to the conventional wisdom.

PD October 1986. TI East-West Trade, Embargoes and Expectations. AA School of European Studies, University of Sussex, Brighton. SR Centre for Economic Policy Research Discussion Paper: 139; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 114, 421, 441, 442. KW East-West Trade. Multinational Corporations. Embargoes. Expectations. Political Relations.

AB There are significant differences between the United States and Western Europe on policy towards East-West trade. Some of this is attributable to the divergent economic interests of different countries, but all countries' policies are influenced by political as well as economic considerations. This paper focuses on the role of expectations in distinguishing between the view of economic relations as giving rise to positive linkages with political relations and the alternative view of economic ties as providing political leverage. Multinational cooperation may be an important channel through which the economic system reacts to political risks, and a formal model is presented to analyse this issue. The conclusion of the paper is that there may be only very limited scope for the use of trade embargoes as a political and strategic tool.

Smith, Gregor W.

PD December 5, 1986. TI Forward-Looking, Stochastic Cash-Management and the Demand for Money. AA Queen's University, Department of Economics. SR Queen's Institute for Economic Research Discussion Paper: 673; Department of Economics, Queen's University, Kingston, Ontario, Canada K7L 3N6. PG 36. PR \$2.50 Canada; \$3.00 United States; \$3.50 foreign. JE 023, 311. KW Inventory Theory. Cash-Management. Money Demand.

AB This paper aims to connect money demand theory with optimal inventory theory and with time series evidence. It extends recent advances in inventory theory to allow the interest rate to follow a stochastic process. The problem of minimizing the expected, discounted sum of cash-management costs is ascribed to an agent. An optimal cash-management policy is shown to exist and be of a familiar target-threshold form. Closed-form

expressions for the forward-looking, time-varying targets and thresholds are derived in a special case. The theory implies that expected future interest rates may influence money holdings despite the absence of strictly convex adjustment costs. A distributed-lag expression for these holdings is proposed in which the adjustment and expectations dynamics are derived from theory. Aggregation over time and, to a lesser extent, over agents is treated explicitly.

Smith, Lance

TI On the Superneutrality of Money in a Stochastic Dynamic Macroeconomic Model. AU Danthine, Jean Pierre; Donaldson, John B.; Smith, Lance.

Sneider, Richard L.

TI The Changing Balance - South and North Korean Capabilities for Long-Term Military Competition. AU Wolf, Charles; Henry, Donald P.; Yeh, K. C.; Hayes, James H.; Schank, John; Sneider, Richard L.

Snower, Dennis

TI Efficiency Wages Versus Insiders and Outsiders. AU Lindbeck, Assar; Snower, Dennis.

Solaner, Garth

TI Competition, Compatibility and Standards: The Economics of Horses, Penguins and Lemmings. AU Farrell, Joseph; Solaner, Garth.

Sondermann, Dieter

PD October 1985. TI Best Approximate Solutions to Matrix Equations Under Rank Restrictions. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-6; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 11. PR No Charge. JE 213, 211. KW Penrose Concept. Matrix Equations. Rank Restrictions. Best Approximate Solutions.

AB The paper extends Penrose' (1955) concept of best approximate solutions of matrix equations to linear equations with rank restrictions. We show that the matrix equation $AXB = C$ under the restriction $\text{rank}(X) \leq K$ for arbitrary matrices A, B, C and integer K has a unique best approximate solution in the sense of Penrose (1955). This generalizes and sharpens results due to Schmidt (1907), Eckart and Young (1936), Householder and Young (1938), Fisher (1969) and Rao (1980). Already the classical result where A, B or C are the identity matrix has numerous statistical applications in the theory of indices (see e.g. Schneeweiss (1965) and Bamberg and Spremann (1984)), factor analysis, principal component analysis, multidimensional scaling and graphical data analysis techniques. For a review of these statistical applications we refer to Gabriel (1971), Gnanadesikan (1977) and Kruskal (1978). Besides its applications in statistics and psychometrics matrix approximations are an important tool in the statistical theory of aggregation. For these applications we refer the reader to the contributions of Fisher (1962), (1969), (1979), Chipman (1975), (1976), Sondermann (1973), and Tintner and Sondermann (1977).

Spady, Richard

TI Factors Affecting the Output and Quit Propensities of Production Workers. AU Klein, Roger; Spady, Richard; Weiss, Andrew.

TI Factors Affecting the Output and Quit Propensities of Production Workers. AU Klein, Roger; Spady, Richard; Weiss, Andrew.

Spigelman, David F.

PD March 1987. TI Macroeconomic Instability of the Less Developed Country Economy when Bank Credit is Rationed. 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: 305; Division of International Finance Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 40. PR No Charge. JE 121, 131, 134, 311, 321. KW Credit Rationing. Hyperinflation. Stabilization. Macroeconomic Instability. Credit Constraint. LDCs. Developing Countries.

AB During the early 1980s, many less developed countries (LDCs) experienced a phenomenon which is not readily explicable using conventional macroeconomic theory: accelerating inflation coupled with output contraction. Moreover, arguments based on supply shocks do not adequately explain the performance of the LDCs over this period. In explaining the apparent anomaly of accelerating inflation coupled with output contraction, the model developed here assigns an important role to the availability of bank credit. In many LDCs, the government fixes interest rates on bank deposits and loans. If rates on loanable funds are set below market clearing levels, this leads to credit rationing. Generally, firms must pay wages to workers in advance of the receipts from sales. Bank credit is needed to finance the hiring of labor when there are few alternative sources of finance. Loan availability can thus have a crucial impact on the supply of output. The credit constraint is exacerbated when the government's fiscal deficit instigates inflationary pressure. In response, households reduce deposit holdings leading to a contraction in loan availability and recession. Initially, the fiscal deficit and the money supply are assumed to be exogenously determined. Later, the analysis examines a feedback effect of inflation leading to increases in the fiscal deficit and further inflationary pressure. As inflation accelerates, individuals try to shift out of money balances and into inflation hedges contracting the real money supply, real loan availability, and output. Thus the model suggests an explanation for the vicious circle of accelerating inflation and declining output which is observed in many LDCs.

Spulber, Daniel F.

PD January 1987. TI Product Liability and Monopoly in a Contestable Market. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8701; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 14. PR No Charge. JE 612, 611, 916. KW Product Liability. Monopoly. Contestable Market. Product Quality. Threat of Entry. Second Best Strategy.

Market Entry.

AB Sustainable monopoly prices, outputs and producer care are examined in a contestable market setting under alternative liability rules. The market attains a second best optimum under strict liability, negligence and no liability. The threat of entry is thus sufficient for a monopoly to supply second best optimal product quality.

TI Antitrust Enforcement Under Asymmetric Information. **AU** Besanko, David; Spulber, Daniel F.

PD January 1987. **TI** Optimal Environmental Regulation Under Asymmetric Information. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8706; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 19. **PR** No Charge. **JE** 024, 722, 026, 022. **KW** Environment. Regulation. Incomplete Information. Pollution.

AB A model of environmental regulation with interdependent production and pollution abatement costs and heterogeneous firms is developed. Firms have private information about costs which have a quadratic form. A budget-balancing problem is shown to exist even with Bayes-Nash strategies. The full information optimum cannot be attained unless gains from trade in the product market net of external damages exceed the information rents earned by firms.

Stager, David A. A.

PD February 1987. **TI** Lawyer's Earnings Under Market Differentiation and Rapid Supply Expansion, 1970-1980. **AU** Stager, David A. A.; Foot, David K. **AA** University of Toronto. **SR** University of Toronto Institute for Policy Analysis Working Paper: 8704; Department of Economics, University of Toronto, Toronto, Ontario, CANADA M5S 1A1. **PG** 25. **PR** No Charge. **JE** 824, 812, 916, 917. **KW** Lawyers. Earnings. Canada. Corporate Law. Social Stratification. Women. Female.

AB An analysis of lawyers' earnings data from the 1971 and 1981 Canadian censuses shows that market differentiation and social stratification in the legal profession result in significant differences in earnings for lawyers in private practice. Lawyers in the financial centres of Montreal and Toronto substantially increased their earnings advantage during the 1970s. Large negative differentials for female lawyers were virtually unchanged over the decade. Lawyers whose home language is neither English nor French, and foreign-born lawyers, saw their inferior relative earnings decline still further. Unprecedented growth of the profession during the 1970s contributed to a 17 per cent decline in the average real earnings for lawyers; 40 per cent of this was due to a change in the composition of the profession.

Stamoulis, Kostas G.

TI The Effects of Monetary Policy on United States Agriculture. **AU** Chalfant, James A.; Love, H. Alan; Rausser, Gordon C.; Stamoulis, Kostas G.

TI Macroeconomics, Overshooting, and the U. S. Agriculture Sector. **AU** Rausser, Gordon C.; Nishiyama, Yasuo; Stamoulis, Kostas G.

Steinberg, Richard S.

PD February 1987. **TI** A Note on Uniqueness in Noncooperative Additive Games with Special Reference to Public Goods. **AA** Virginia Polytechnic Institute and State University. **SR** Virginia Polytechnic Institute and State University Working Paper in Economics: E87-02-06; Working Paper Coordinator, Department of Economics Sandy Hall, Blacksburg, VA 24061. **PG** 9. **PR** Free by request. **JE** 026, 022. **KW** Uniqueness. Public Goods. Donations. Nash Equilibrium. Noncooperative Games.

AB I present a new proof of a known sufficient condition for uniqueness in additive games, then use this method of proof to derive a new sufficient condition. Unlike earlier results, this new condition is applicable to the problem of voluntary provision of public goods. Finally, I show that prior theorems on uniqueness of the sum of strategies in such games neglect a serious coordination problem due to the infinite number of equilibrium strategies available to some players.

Steindel, Charles

PD December 1986. **TI** The Shifting Term Structure of Interest Rates. **AU** Steindel, Charles; Palash, Carl. **AA** Steindel: Federal Reserve Bank of New York. Palash: McCarthy, Crisanti, Maffei, Inc. **SR** Federal Reserve Bank of New York Research Paper: 8613; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 23. **PR** No Charge. **JE** 310, 311, 321, 431. **KW** Term Structure. Interest Rates. Monetary Policy. Deficit. Exchange Rate Instability. Fiscal Policy.

AB The standard theory of the term structure explains its movements by changes in the perceived relative risk of short- and long-term investment and changes in forecasts of short-term interest rates. Empirical models which explain the differential between Treasury Bill rates and yields on 5-year Treasury Bonds by proxying forecasts with distributed lags on the Bill rate and inflation, and risk by the past variation in Bill rates, do not satisfactorily explain the behavior of the yield curve in the 1980's. The addition of monetary and fiscal policy indicators (as additional forecasters of short-term rates) and exchange rate instability (as a proxy for risk) substantially improves the model's performance. According to the revised model, the steepening of the yield curve in the early 1980's can be traced to a decline in inflation (relative to expectations), expansionary fiscal policy, and increased instability in exchange rates. The 1985-86 narrowing of the yield curve appears in large part traceable to a tightening in fiscal policy.

Sterdyniak, H.

PD March 1986. **TI** Du Bon Choix de l'Aggregat Monetaire (Intermediate Targeting: The Right Choice). **AU** Sterdyniak, H.; Villa, Pierre. **AA** Sterdyniak: O.F.C.E. Paris. Villa: CEPREMAP. **SR** CEPREMAP Discussion Paper: 8607; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 34. **PR** 20FF. **JE** 311, 131, 023, 133. **KW** Intermediate Targeting. Financial Aggregates. Monetary Stocks. Money Stock. Monetary Policy. Interest Rates.

AB The paper gives some highlights on the danger of targeting. The government can choose several

intermediate targets, whether small or large (small or large definitions of the money stock, domestic financial assets). It can control the private counterpart of the aggregates only, excluding the financing of the government debt. In an open economy, it can decide to control only the domestic counterpart of the aggregates. The evolutions of these aggregates differ with the nature of the shocks so that their control leads to specific interest rate responses that have specific consequences on the final targets: output and foreign reserves. The paper shows that the control of each aggregate may be stabilizing, destabilizing (transmits pure financial shocks to the real sector) or perverse (increases shocks) according to the nature of the shocks. The paper shows that better aggregates than the money stock can be found, such like the small aggregates (Refinancing, Domestic Credit, Domestic Private Borrowing), especially when public expenditures and their financing are not too unstable. (Paper in French).

Stiglitz, Joseph E.

PD December 1985. TI Credit Rationing With Collateral. AU Stiglitz, Joseph; Weiss, Andrew. AA Stiglitz: Princeton University. Weiss: Columbia University. SR Bell Communications Research Incorporated Economics Discussion Paper: 12; Bell Communications Research, Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 45. PR No Charge. JE 310, 312, 314. KW Credit Rationing. Collateral. Capital Market Imperfections.

AB We present a model of a competitive banking system in which banks simultaneously choose interest rates and collateral requirements. Contracts can have both incentive and sorting effects. We construct equilibria in which every type of borrower is rationed. That is, for each group of identical loan applicants some get credit and others do not, and within each group the applicants getting credit are strictly better off than the applicants being denied credit. This construction is possible whether loan contracts are acting as self-selection devices, or all borrowers are choosing the same contract.

TI Information and Regulation. AU Sappington, David E. M.; Stiglitz, Joseph E.

TI Intergenerational Mobility and Dynastic Inequality. AU Kanbur, S. M. Ravi; Stiglitz, Joseph E.

PD March 1987. TI Macro-Economic Equilibrium and Credit Rationing. AU Stiglitz, Joseph E.; Weiss, Andrew. AA Stiglitz: Princeton University. Weiss: Bell Communications Research, Incorporated. SR Bell Communications Research Incorporated Economics Discussion Paper: 24; Room Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. PG 49. PR No Charge. JE 023, 131, 314, 315. KW Credit Rationing. Fluctuations. Incentives. Collateral Requirements.

AB In this paper we investigate the macro-economic equilibria of an economy in which credit contracts have both adverse selection and incentive effects. The terms of credit contracts include both an interest rate and a collateral requirement. We show that in this richer model all types of borrowers may be rationed. Interest rates charged borrowers may move either pro or counter-cyclically. If pro-cyclical shocks have a greater effect on

the success probabilities of risky techniques than on safe ones, then the interest rate offered depositors may also move counter-cyclically. Finally, we show that the impact of monetary policy on the macro-economic equilibrium is affected by whether or not the economy is in a regime in which credit is rationed.

TI Privatization, Information and Incentives. AU Sappington, David E. M.; Stiglitz, Joseph E.

PD March 1987. TI Pareto Efficient and Optimal Taxation and the New Welfare Economics. AA Princeton University. SR National Bureau of Economic Research Working Paper: 2189; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 323, 324, 325, 024. KW Pareto Efficient Taxation. Commodity Taxes. Progressive Tax Structure. Tax Policy. Social Welfare Function.

AB This paper surveys recent developments in the theory of Pareto efficient taxation. This literature attempts to characterize those tax structures which, given the limitations on the government's information and other limitations on the government's ability to impose taxes, maximize the welfare of one individual (group of individuals) subject to the government obtaining a given revenue and subject to other (groups of) individuals attaining certain specified levels of utility. Utilitarian (or other) social welfare functions can then be used to select among these Pareto efficient tax structures. While the original goal of this line of research, which was to provide a "scientific" basis for arguing for a progressive tax structure, has not been achieved -- and does not seem achievable -- important insights have been gleaned, which should enable governments to make better choices of tax policies in the future. On the other hand, this research has cast serious doubt on the relevance of many long standing results, including those of Ramsey concerning the structure of commodity taxes.

TI Money, Imperfect Information and Economic Fluctuations. AU Greenwald, Bruce; Stiglitz, Joseph E.

Stinchcombe, Maxwell

TI Extensive Form Games in Continuous Time Part I: Pure Strategies. AU Simon, Leo K.; Stinchcombe, Maxwell.

Sundaresan, Suresh M.

PD January 1987. TI Optimality of Permanent Income Hypothesis. AA Columbia University, Graduate School of Business. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-01; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 17. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 023, 022, 111. KW Permanent Income. Nonseparable Preferences. Consumption Smoothing.

AB Yaari (1976) showed in the context of fairly general separable utility that the optimal consumption policy is to consume the permanent income. In this paper, we extend his result to a case where the preferences are intertemporally dependent but display constant absolute

risk aversion.

PD January 1987. **TI** Portfolio Selection with Intertemporally Dependent Preferences. **AA** Columbia University, Graduate School of Business. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-02; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 28. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). **JE** 313, 521, 022. **KW** Portfolio. Nonseparable Preferences. Intertemporal Dependence. Utility. Consumption. Asset Prices. Intertemporal CAPM.

AB We construct a model in which the consumer's utility from a consumption bundle depends also on his consumption history via the weighted average of his past consumption rates. Our model is able to explain the observed stickiness of the consumption series and the regularity that the savings to wealth ratio tends to be higher at higher wealth levels. The optimal consumption and portfolio rules of Merton (1969, 1971) are extended to accommodate nonseparability in preferences. Consumption and investment decision are shown to be interdependent. Asset prices are shown to exhibit a factor structure with consumption and wealth identified as separate factors. Intertemporal CAPM similar to the one derived by Breeden (1979) is shown to be valid for a class of nonseparable preferences.

Sung, Bom Yong

TI Recursive Utility and Optimal Capital Accumulation, I: Existence. **AU** Becker, Robert A.; Boyd, John H.; Sung, Bom Yong.

Svensson, Lars E. O.

TI Why a Stubborn Conservative Would Run a Deficit: Policy With Time-Inconsistent Preferences. **AU** Persson, Torsten; Svensson, Lars E. O.

Sweet, Lawrence M.

PD March 1987. **TI** Currency Composition of Developing Country Debt: The Impact of Dollar Depreciation. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8702; Research Department - Room 901, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045. **PG** 34. **PR** No Charge. **JE** 431, 443, 121, 133. **KW** LDC debt. Developing Countries. Foreign Liabilities. Currency Composition. Diversification. Exchange Rates. Dollar Depreciation. International Bank Loans.

AB This paper examines the currency composition of developing country debt. The dollar's decline since early 1985 pushed up total LDC debt by an estimated \$140 billion as external liabilities denominated in non-United States currencies rose in terms of dollars. Since the most active LDC borrowers have the largest share of non-dollar liabilities, they have experienced the greatest valuation-related increase in debt. In fact, the declining dollar has driven up the debt of some countries in Eastern Europe, Asia, and Africa by more than 25 percent. While this represents a significant capital loss for the LDCs, an understanding of these valuation effects can prevent

weighing them too heavily on a country's credit standing and overestimating the incidence of LDC capital flight during the dollar's depreciation. This paper also considers the benefits of currency diversification, especially interest savings and reduced exchange rate risk, and discusses how the dollar's decline has enhanced the ability of non-United States banks to withstand shocks to their LDC portfolio.

Symons, James S. V.

TI Corporatism, the 'Laissez-faire' and the Rise in Unemployment. **AU** Newell, Andrew; Symons, James S. V.

Sze, Man Bing

PD May 1985. **TI** Pension Funding Policy and Corporate Finance. **AA** Rand Corporation. **SR** Rand Paper: P-7144-RGI; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 112. **PR** No Charge. **JE** 918, 915, 911, 514, 521, 613. **KW** Pension Plans. Employee Retirement Income Security Act. Retirement Income.

AB This paper considers private pension plans, their role in corporate finance, their funding levels, and the role of government policy in regulating and backing them. In particular, it focuses on the Employee Retirement Income Security Act of 1974 (ERISA) within the government regulatory environment, and assesses the social objective of retirement income security and the future of ERISA. Using a new method to measure pension liabilities, the author shows that funding is seriously inadequate due to unrealistic and ineffective regulations that allow companies to use pension funding for other corporate purposes. As a result, ERISA cannot achieve its goal of fully funded pensions, and proposed changes may not be successful. The author suggests instead that the market system can provide an alternative mechanism to achieve ERISA's social objective of retirement income security.

Szekely, Istvan

PD 1985. **TI** Models for Groups of Developing Countries in the IIASA-Bonn Research Project on Economic Growth and Structural Change. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-32; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 31. **PR** No Charge. **JE** 152, 212, 111, 121. **KW** Structural Change. Economic Growth. Submodel. LDC's. Econometric Models. Third World. World Model. Multicountry Model. Development.

AB In the world model being developed in the IIASA-Bonn Research Project on Economic Growth and Structural Change the LDC's are modelled as groups. In this paper the submodel of these groups are presented. The general structure of this paper is the following: for each part of the model first its specification is described then the estimation results and the error analysis for the ex-post simulation are presented and finally, in the end the arisen problems are listed. The "General Notes" on the following pages give all the technical details of this model. The description of the groups, the list of the variables and a detailed results for the error analysis of the ex-post simulation can be found in the annexes. Since the final

form of the model is still a long way off the results presented here are to be considered only as preliminary ones. Suggestions, remarks and criticisms are most welcome.

TI Economic Structural Change. The Bonn IIASA Research Project: Theoretical Background and Actual State. AU Krelle, W.; Dobrinsky, R.; Gajda, J.; Ross, H.; Ssekely, I.; Welsch, H.

PD November 1986. TI Economic Growth and Structural Change in Developing Countries. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-64; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 55. PR No Charge. JE 111, 121, 211, 212. KW Economic Growth. Structural Change. World Model. LDCs.

AB The purpose of this paper is to present the models of developing countries (DCs) in the world model developed in the Bonn-IIASA Research Project on Economic Growth and Structural Change. The theoretical foundation of this world model can be found in Krelle (1985a) and in Krelle and al. (1985a) and the detailed description of the specification is given in Krelle (1985b). The models of DCs presented in this paper are formulated for groups of countries. The only exception is India which is modelled separately because of her dominant size and different growth pattern. With respect to the formation of the groups our approach is different from those of the other world models. (See e.g. Leontief and al. (1977), Mesarovic and Pestel (1974), and the Trade and Development report of UNCTAD). It is different in the sense that we chose representative countries in a region and formed the group from them. In doing so our main goal was to have as homogeneous groups as it was possible. To achieve this homogeneity the formation of the groups was based on the common cultural and historical background of the countries and on the similarities in their growth patterns.

Tabellini, Guido

PD February 1987. TI Learning and the Volatility of Exchange Rates. AA Department of Economics, University of California at Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 434; Department of Economics - University of California at Los Angeles Los Angeles, CA 90024. PR \$2.50. JE 431, 441, 313. KW Exchange Rates. Learning. Volatility Tests. Bubbles. Market Uncertainty.

AB This paper investigates the implications for the volatility of exchange rates of specifying market uncertainty as parameter uncertainty. Private agents learn by means of Bayes rule about a parameter of the stochastic process generating the exogenous variables. Learning is shown to magnify the reaction of exchange rates to random shocks to the "market fundamentals". This magnification effect of learning can explain the rejections of the econometric tests on the variance bounds and on the absence of bubbles that have been reported in the literature.

TI A Positive Theory of Fiscal Deficits and Government

Debt in a Democracy. AU Alesina, Alberto; Tabellini, Guido.

Tan, Boon Ann

TI Determinants of Contraceptive Method Choice in Peninsular Malaysia, 1961-1975. AU DaVanzo, Julie; Tan, Boon Ann; Othman, Ramli; Peterson, Jane R.

Taylor, William E.

TI Efficient Estimation and Identification of Simultaneous Equations Models with Covariance Restrictions. AU Hausman, Jerry A.; Newey, Whitney K.; Taylor, William E.

Teller, Charles H.

PD October 1984. TI Circular Migration and Young Child Malnutrition in Guatemala. AU Teller, Charles H.; Butz, William P. AA Teller: United States Department of Health and Human Services. Butz: United States Bureau of the Census. SR Rand Paper: P-7187; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 21. PR No Charge. JE 913, 121, 914, 823. KW Guatemala. Malnutrition. Migration. Migratory Labor. Children. Health.

AB This paper was originally presented at the annual meeting of the Population Association of America, April 14-16, 1983, in Pittsburgh, Pennsylvania. It explores the relationship between circular migration and one of its possible social consequences: changes in a young child's nutritional status. The authors raise two questions: (1) Are circular migrants at higher risk to certain negative consequences, in this case malnutrition of their children, than their nonmigrant neighbors? (2) If they are a special risk group, is this related more to their low socioeconomic status or to the actual experience of frequent, temporal migratory events? The findings suggest, among other things, that migration activity and patterns should be explicitly measured and their effects evaluated in nutrition and health studies, and that nutritional interventions might be most effective if they focused on the children of migrants during the migratory period and not after it.

ten, Raa Thijs

TI On the Continuum Approach of Spatial and Some Local Public Goods or Product Differentiation Models. AU Berliant, Marcus; ten, Raa Thijs.

Terrell, Henry S.

PD March 1987. TI A Simple Simulation Model of International Bank Lending. AU Terrell, Henry S.; Dohner, Robert S. AA Terrell: Board of Governors of the Federal Reserve System. Dohner: The Fletcher School of Law and Diplomacy. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 307; Federal Reserve Board, 20th and C Streets, N.W. Washington, D.C. 20551. PG 29. PR No Charge. JE 433, 443, 213. KW International Banking. Bank Lending. Foreign Debt. Targeting. International Lending.

AB The paper develops a simple simulation model of international bank lending to test the extent to which targeting of fixed shares in the stock of total bank claims

on a borrower can make lending flows unstable. The model is based on three distinct types of lending strategies: potentially volatile lending by one group of banks with limited long-term commitment to international lending; the targeting of a given share of the total lending market; and lending based on an assessment of the borrower's creditworthiness. The results of the model's simulations suggest that lending flows can become quite unstable if more than one-half of international bank lending is predicated on the maintenance of market share. The model also indicates an ambiguous role for market information in preserving stability. To the extent that improved public information about the lending activities of banks causes more banks to target market share, such information can result in market instability. However, under a rational expectation version of the model, if the increased information about bank lending behavior is used by some banks to improve their forecasts of the reactions of other banks it can serve to stabilize the system.

Tesfatsion, Leigh

TI Pareto-Efficiency of Stationary Competitive Equilibria in Overlapping Generation Economics. AU Pingle, Mark; Tesfatsion, Leigh.

Thisse, Jacques Francois

TI A Representative Consumer Theory of the Logit Model. AU Anderson, Simon P.; de Palma, Andre; Thisse, Jacques Francois.

Tillmann, Georg

PD June 1986. TI Taxation and Observability. AA University of Bonn. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-54; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 40. PR No Charge. JE 323, 024, 321. KW Welfare Economics. Redistribution. Taxation. Income Taxes. Optimal Tax.

AB One of the most fundamental issues in welfare economics is the problem of redistribution. "Poor people" are favoured and "rich ones" taxed by certain ethical reasons. There may be many tools to change the income distribution but one of the most fundamental ones is an income tax or more generally, taxes. There is a large literature on optimal taxation starting with Mirrlees' famous paper. Normally, a special social welfare function (SWF) which represents the redistributive aims of the government is maximized. In most of these models we have a continuum of consumers, an assumption which is obviously attractive for its technical convenience: Calculus of variations can be used "smoothing" the optimal tax function. But as was already stated by Guesnerie-Seade: "Whatever the merits of the continuum approach there is nonetheless a clear theoretical case for considering the finite economy. A variety of reasons can be given for this." The most interesting for us is the following: In every tax-problem there is a two-step maximisation: First agents maximize their utility - given a special tax function T; second, the government seeks the optimal tax according to its aims. As already mentioned this is normally done using calculus and especially first order conditions. But it is well known that these conditions characterize only a

local solution - apart from the fact that it is not even known if they determine a maximum at all. The discrete approach avoids these difficulties and provides us with a different perspective on how the problem works. Additionally, it makes more explicit the interaction between the government which is the planner and the agents who are the consumers. Therefore we have a special principal-agent problem, where incentives play an important role.

Tirole, Jean

PD November 1986. TI Noncooperative Game Theory for Industrial Organization: An Introduction and Overview. AU Tirole, Jean; Fudenberg, Drew. AA Tirole: Massachusetts Institute of Technology. Fudenberg: University of California at Berkeley. SR University of California at Berkeley Department of Economics Working Paper: 8613; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 104. PR \$3.50. JE 026, 611, 022. KW Noncooperative Game Theory. Rational Expectations. Rationality. Oligopoly Theory.

AB Non-cooperative game theory is a way of modelling and analyzing situations in which each player's optimal decisions depend on his beliefs or expectations about the play of his opponents. The distinguishing aspect of the theory is its insistence that players should not hold arbitrary beliefs about the play of their opponents. Instead, each player should try to predict his opponents' play, using his knowledge of the rules of the game and the assumption that his opponents are themselves rational, and are thus trying to make their own predictions and to maximize their own payoffs. Game-theoretic methodology has caused deep and wide-reaching changes in the way that practitioners think about key issues in oligopoly theory, much as the idea of rational expectations has revolutionized the study of macroeconomics. This essay tries to provide an overview of those aspects of the theory which are most commonly used by industrial organization economists, and to sketch a few of the most important or illuminating applications. We have omitted many interesting game-theoretic topics which have not yet been widely applied.

Tolliday, Steven

TI Between Fordism and Flexibility: The Automobile Industry and its Workers - Past, Present and Future. AU Zeitlin, Jonathan; Tolliday, Steven.

Topel, Robert H.

PD November 1986. TI Job Mobility and the Careers of Young Men. AU Topel, Robert H.; Ward, Michael P. AA Rand Corporation. SR Rand Report: N-2311-DOC; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 44. PR No Charge. JE 820, 810. KW Work. Labor Market. Labor Turnover. Labor Force Demographics.

AB Male workers in the United States change jobs more than eleven times during their lives but most of these changes occur before the age of 30. The vast majority do not involve spells of unemployment and most are associated with increases in earnings. In this Note, the authors study the process of job change among young men

and consider those characteristics of workers and firms that make for lasting employment relationships. Among their conclusions the authors found that (1) declining mobility over careers is the outcome of a search process in which the workers sort themselves into better and better employment matches; (2) among young men, more than 60 percent of all new jobs end in the first year and more than one-third end in the first three months; (3) the likelihood that a new job will last increases with labor market experience; (4) an important portion of rapid labor turnover among young workers is accounted for by weak labor force attachment; (5) young blacks hold jobs that are significantly less stable than those of whites; and (6) jobs in large firms are more stable than in small ones.

Tosstorff, G.

TI Strong Consistency of Least Squares Estimators in the Monotone Regression Model with Stochastic Regressors. AU Christopheit, N.; Tosstorff, G.

Townsend, Robert M.

PD April 1986. TI Economic Organization with Limited Communication. AA The University of Chicago and Program in Quantitative Economic Analysis/NORC. SR Economics Research Center/NORC Discussion Paper: 86-3; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. PG 48. PR \$2.00; Send requests to Librarian, Economics Research Center. JE 611, 026, 511, 025. KW Communication. Contract Theory. Mechanism Design. Communication-Accounting. Information. Telecommunication Systems.

AB In environments with private information and spatial separation, mutually beneficial arrangements can be limited by the ability of agents to announce values for contemporary shocks and to keep track of past announced shocks or past transfers. This paper formalizes this idea and focuses on communication-accounting systems. The systems considered -- oral assignment systems, portable object systems, written message systems and electronic telecommunication systems -- are motivated by observations from historical, primitive, and contemporary economies. By extending some recent work on contract theory and mechanism design, the paper presents a formal, stylized version of each system and makes precise the sense in which each system is more or less limited. In the process a role for two-way, apparently redundant transfers is uncovered.

Trinder, C.

TI Public and Private Sector Pay: Some Further Results. AU Foster, N.; Henry, S. G. B.; Trinder, C.

Tsybakov, A. B.

TI Robust Nonparametric Regression With Simultaneous Scale Curve Estimation. AU Hardle, W.; Tsybakov, A. B.

Tulkens, Henry

TI On Pareto Improving Tax Changes Under Fiscal Competition. AU de Combrugghe, Alain; Tulkens, Henry.

Ullah, Aman

PD October 1986. TI Nonparametric Recursive Estimation of a Multivariate, Marginal and Conditional DGP with an Application to Specification of Econometric Models. AU Ullah, Aman; Singh, Radhey S. AA Ullah: Department of Economics, University of Western Ontario. Singh: Department of Mathematics and Statistics, University of Guelph. SR University of Western Ontario Centre for Decision Sciences and Econometrics Technical Report: 14; The Centre for Decision Sciences and Econometrics, Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 24. PR No Charge. JE 211. KW Nonparametric. Multivariate. Regression Curve. Kernel. Asymptotics. Normality. Specification. DGP. Data Generating Process. Bandwidth.

AB Nonparametric recursive kernel estimators of a multivariate data generating process (DGP) are presented and their asymptotic biases, variances and distributions are examined. Weak and strong consistency of these estimators are also proved. Remarks on the choice of the kernel function and the bandwidth function are made. Recursive estimates of the marginal and the conditional DGP are deduced from the estimates of the multivariate density. Finally, an application of these estimates to estimation and specification of econometric models is pointed out.

van Dijk, Herman K.

PD December 1986. TI A Product of Multivariate T Densities as Upper Bound for the Posterior Kernel of Simultaneous Equation Model Parameters. AA Centre for Operations Research and Econometrics, Universite Catholique de Louvain and Erasmus University Rotterdam. SR Universite Catholique de Louvain CORE Discussion Paper: 8650; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 11. PR No Charge. JE 211. KW Integrability Conditions.

AB Given certain integrability conditions, a tractable upper bound function for the posterior kernel of simultaneous equation model parameters is derived for the case of noninformative prior information on unrestricted structural parameters. The upper bound is a constant times a product of multivariate Student t densities defined in a recursive way; compare Dreese and Richard (1983). The integrability conditions are interpreted in terms of restrictions on the structural parameters and a restriction on a prior degrees of freedom parameter.

van Wijnbergen, Sweder

TI Budget Deficits, Interest Rates and the Incentive Effects of Income Tax Cuts. AU Bean, Charles R.; van, Wijnbergen Sweder.

TI Budget Deficits, Interest Rates and the Incentive Effects of Income Tax Cuts. AU Bean, Charles R.; van, Wijnbergen Sweder.

Venables, Anthony

TI Necessary and Sufficient Conditions for Factor Price

Equalisation. AU Blackorby, Charles; Schworm, William; Venables, Anthony.

Vial, Jean Philippe

PD December 1986. TI Approximate Projections in a Projective Method for the Linear Feasibility Problem. AA University of Geneva. SR Universite Catholique de Louvain CORE Discussion Paper: 8707; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 28. PR No Charge. JE 213. KW Projective Algorithm. Linear Programming. Linear Feasibility Problem. Approximate Projections.

AB The key issue in implementing a projective method is the projection operation. In order to cut down computations several authors have suggested to use approximations instead of the projection itself. Unfortunately, using approximations may not be compatible with the proofs of polynomial complexity. We propose several types of approximations which preserve the complexity property of the version of Karmarkar's algorithm presented by de Ghellinck and Vial. The analysis is based on a relaxation of the main convergence lemma of de Ghellinck and Vial.

Villa, Pierre

TI Du Bon Choix de l'Agreat Monetaire (Intermediate Targeting: The Right Choice). AU Sterdyniak, H.; Villa, Pierre.

Vinod, H. D.

PD January 1987. TI Maximum Likelihood Fuzzy Range for Errors in Variables Model. AA Fordham University. SR University of Western Ontario Department of Economics Research Report: 8704; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 21. PR No Charge. JE 211. KW Maximum Likelihood. Fuzziness. Errors in Variables. Measurement Error. Unobservable Variables.

AB The use of ordinary least squares (OLS) estimator in the presence of measurement errors (fuzziness) in many variables can lead to logical difficulties and inconsistencies (e.g. "second best" problem). We illustrate the feasibility of the well known, but rarely used maximum likelihood (ML) estimator. From the ML estimates of unobservable regressors we suggest a fuzzy symmetric range of their values near the observable counterparts. A simple estimator called AV from certain sufficient statistics based on the fuzzy range is suggested, and its properties are investigated. It is shown to yield as good as, or better estimator than one based on randomization within the fuzzy range. A textbook example is used for illustration and simulation.

PD January 1987. TI Don't Rock the Boat: Regulatory Economics Under Multiple Objectives. AA University of Western Ontario and Fordham University. SR University of Western Ontario Department of Economics Research Report: 8703; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 26. PR No Charge.

JE 613, 611. KW Regulation Mechanism. Public Utilities. Regulated Profits. Incentives. Utility Rates.

AB This paper proposes a new theoretical model for a stochastic regulation mechanism to set prices charged by public utilities. The objective function for the regulator has triple goals of keeping profits close to a regulated level, low variance of prices and low level of prices. An explicit price setting rule is obtained by using Wiener-Hopf arguments due to Whittle. Actual profits, regulated profits, and the price of output are allowed to have stochastic components. An empirical implementation based on Bell System time series data suggests no reward for productivity improvements, and a strong desire for low and stable rates.

Wadhvani, Sushil

TI Myopia, the 'Dividend Puzzle', and Share Prices. AU Nickell, Stephen; Wadhvani, Sushil.

TI Myopia, The 'Dividend Puzzle' and Share Prices. AU Nickell, Stephen; Wadhvani, Sushil.

Waelbroeck, Jean

PD 1986. TI Some Pitfalls in Applied General Equilibrium Modelling. AA Centre for Operations Research and Econometrics, Universite Libre de Bruxelles, and University of British Columbia. SR Universite Catholique de Louvain CORE Discussion Paper: 8640; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, BELGIUM. PG 35. PR No Charge. JE 021, 212, 022. KW General Equilibrium Models. Aggregation Problem. Price Rigidities. Representative Agent.

AB The paper surveys problem areas in applied general equilibrium modelling. A first section examines problems of aggregation over agents, estimation, and computation in the Arrow-Debreu general equilibrium model, from which money is absent. The second discusses models that use the concept of a general equilibrium with rationing to describe the functioning of an economy with price rigidities, when money is present.

TI Agricultural Development Led Industrialization in a Global Perspective. AU Adelman, Irma; Bournieux, Jean Marc; Waelbroeck, Jean.

Waite, Linda J.

TI Sex Differences in the Entry Into Marriage. AU Goldscheider, Frances Kobrin; Waite, Linda J.

Waldman, Michael

TI Responders Versus Nonresponders: A New Perspective on Heterogeneity. AU Haltiwanger, John; Waldman, Michael.

Wanka, Alfred

PD February 1986. TI Matroiderweiterung Zur Existenz Endlicher LP-Algorithmen, von Hahn-Banach-Sätzen und Polarität in Orientierten Matroiden. AA University of Cologne. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: 86-24; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland.

PG 85. PR No Charge. **JE 213. KW** Linear Programming. Algorithm.

TI Matroids Without Adjoint. **AU** Bachem, Achim; Wanka, Alfred.

TI On a Problem About Covering Lines by Squares. **AU** Kern, Walter; Wanka, Alfred.

Ward, Michael P.

TI Job Mobility and the Careers of Young Men. **AU** Topel, Robert H.; Ward, Michael P.

Ware, Roger

TI A Theory of Market Structure with Sequential Entry. **AU** Eaton, B. Curtis; Ware, Roger.

Warga, Arthur

PD January 1987. **TI** Experimental Design in Tests of Linear Factor Models. **AA** Department of Finance, Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-85-36R; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG 33. PR** \$5.00 academics and non-profit institutions, \$6.00 corporations. **JE 211. KW** Linear Factor Model. Collinearity. Factor Loading.

AB It is argued in this paper that cross-sectional tests of linear factor models need to be assessed for potentially harmful collinearity among factor loadings. Relationships between factor loadings are largely determined by the choice of assets tested in the model (the experimental design) and there is a good deal of flexibility in how one goes about choosing these assets. A diagnostic procedure for detecting collinearity is discussed, and several illustrations of the procedure on existing tests of linear factor models are used to illustrate their value to the researcher. Finally, a series of experiments are carried out to validate the diagnostics and to confirm their assessment of the experimental design in the models examined.

Warshawsky, Mark J.

PD April 1987. **TI** Determinants of Corporate Merger Activity: A Review of the Literature. **AA** Staff, Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Staff Studies: 152; Staff Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, DC 20551. **PG 18. PR** No Charge. **JE 522, 521, 514, 511, 313. KW** Mergers. Acquisition. Leverage. Antitrust Policies. Market Power. Restructuring. Takeovers.

AB Merger and restructuring activity among corporations has increased dramatically in recent years. The high level of activity has attracted considerable attention owing to the size and prominence of the corporations involved, the predominant use of debt (in particular, low-grade "junk" bonds) to finance the activity, and the success of hostile raiders in forcing changes in management and in corporate policies. Particular concern has been expressed about the significant cutbacks in corporate expenditures and staff that often result after completion of a takeover or restructuring. More recently, several cases of "insider" trading in stocks of target firms

have led to enforcement actions. These concerns have prompted several proposals to curb takeovers. This paper reviews the relevant theoretical literature, much of it recent, regarding the major determinants of corporate merger activity and examines the empirical evidence bearing on the aptness of the suggested explanations. It also addresses the issue of increased leverage. The literature suggests four major hypotheses to explain merger activity.

Weimer, Theodor

PD June 1986. **TI** Das Substitutionsgesetz der Organisation. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: D-7; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, Deutschland. **PG 46. PR** No Charge. **JE 511. KW** Substitution Rule. Organization.

Weingast, Barry R.

TI The Economic Incidence of the Interstate Commerce Act of 1887: A Theoretical and Empirical Analysis of the Shorthaul Pricing Constraint. **AU** Gilligan, Thomas W.; Marshall, William J.; Weingast, Barry R.

Weiss, Andrew

TI Credit Rationing With Collateral. **AU** Stiglitz, Joseph; Weiss, Andrew.

TI The War of Attrition in Continuous Time With Complete Information. **AU** Hendricks, Ken; Weiss, Andrew; Wilson, Charles.

TI Factors Affecting the Output and Quit Propensities of Production Workers. **AU** Klein, Roger; Spady, Richard; Weiss, Andrew.

PD March 1987. **TI** Validating Hiring Criteria. **AU** Weiss, Andrew; Landau, Henry. **AA** Bell Communications Research, Incorporated. **SR** Bell Communications Research Incorporated Economics Discussion Paper: 25; Room, Bell Communications Research Incorporated, 435 South Street, Morristown, NJ 07960-1961. **PG 8. PR** No Charge. **JE 820, 851, 511. KW** Discrimination. Adverse Selection. Performance Measurement.

AB We construct a model in which firms use workers' productivities in determining their job assignments. A worker's productivity must exceed some lower bound to satisfy the minimum qualifications for a particular job. If the worker's productivity exceeds some upper bound he is promoted. Under these conditions it is possible that the better educated and more experienced individuals would be the least productive workers on every job, even though, for each worker, education and experience increases his productivity. Whether this anomalous result occurs depends on the underlying distribution of ability in the population and the job assignment policy delineated above. One implication of our analysis is that firms that use hiring criteria that accurately predict a worker's success on the job may not be able to validate those criteria through measurements of the performance of the workers that they had hired. EEOC rules that require hiring criteria to be validated in that fashion may penalize firms with the most efficient hiring and promotion

standards.

TI Macro-Economic Equilibrium and Credit Rationing. AU Stiglitz, Joseph E.; Weiss, Andrew.

PD March 1987. **TI** Incentives and Worker Behavior: Some Evidence. **AA** Bell Communications Research. **SR** National Bureau of Economic Research Working Paper: 2194; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 824, 825, 821. **KW** Incentives. Workers. Labor Productivity. Wages. Merit Wages. Seniority System. Quit Rates. Job Tenure.

AB This paper is concerned with three types of incentive programs. First, individual wage incentives that cause a worker's efforts to have a major effect on his pay. Second, group incentives in which the pay of an individual is determined by the output of a group of workers -- a group can be as small as a four member work team or as large as the whole firm. Finally, seniority based payment schemes in which the pay of a worker rises rapidly with his tenure with the firm. We show that these payment schemes have the effects in practice that we would predict from optimising behavior by workers. We find that group incentives tend to compress the productivity distribution of workers. This is because the relative performance of the most productive workers tends to fall, and the most and least productive workers have relatively high quit rates when workers are paid on group incentives. We also present evidence that suggests that the low quit rates in large Japanese firms may be due to steep wage -- tenure profiles in those firms.

TI Factors Affecting the Output and Quit Propensities of Production Workers. AU Klein, Roger; Spady, Richard; Weiss, Andrew.

Wells, Kenneth B.

TI Use of Outpatient Mental Health Care - Trial of a Prepaid Group Practice Versus Fee-for-Service. AU Manning, W. G.; Wells, K. B.; Benjamin, B.

TI The Demand for Episodes of Mental Health Services. AU Keeler, Emmett B.; Wells, Kenneth B.; Manning, Willard G.; Rumpel, J. David; Hanley, Janet M.

Welsch, Heinz

PD 1985. **TI** A Forecasting Model of Aggregate Import Demand for Nine Countries. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-33; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 21. **PR** No Charge. **JE** 132, 212, 122, 421, 431. **KW** Import Demand. Imports. OECD. World Model. Forecasting Model.

AB It is shown that a class of import demand equations widely accepted on the basis of compatibility with demand theory, goodness of fit and statistical reliability tends to generate unreasonable import ratios in simulations outside the reference period. This is traced back to the negligency of the budget effects of price movements which is found inappropriate for a large expenditure category like imports. A function is specified, estimated and tested which overcomes these shortcomings.

TI Time Series of Bilateral Commodity Flows for

Sixteen Countries and Eight Groups of Countries 1960-1982. AU Gajda, J.; Welsch, H.

TI Time Series of Bilateral Commodity Import Shares for Sixteen Countries and Eight Groups of Countries 1960-1982. AU Gajda, J.; Welsch, H.

TI Time Series of Bilateral Commodity Export Shares for Sixteen Countries and Eight Groups of Countries 1960-1982. AU Gajda, J.; Welsch, H.

TI Economic Structural Change. The Bonn IIASA Research Project: Theoretical Background and Actual State. AU Krelle, W.; Dobrinsky, R.; Gajda, J.; Ross, H.; Szekeley, I.; Welsch, H.

Wendell, Richard E.

TI The Tolerance Approach to Sensitivity Analysis in Network Linear Programming. AU Ravi, N.; Wendell, Richard E.

Whalley, John

TI Incentive Effects of Price Rises and Payment-System Changes on Chinese Agricultural Productivity Growth. AU McMillan, John; Jing, Zhu Li; Whalley, John.

White, Alice P.

TI Responses to Deregulation: Retail Deposit Pricing from 1983 through 1985. AU Mahoney, Patrick I.; White, Alice P.; O'Brien, Paul F.; McLaughlin, Mary M.

Wibaut, Serge

TI Optimal Commodity Taxation and Tax Reform Under Unemployment. AU Marchand, Maurice; Pestieau, Pierre; Wibaut, Serge.

Wickens, Michael

PD January 1987. **TI** Dynamic Specification, the Long Run and the Estimation of Transformed Regression Models. AU Wickens, Michael; Breusch, Trevor S. **AA** Wickens: Department of Economics, University of Southampton. Breusch: The Australian National University, P O Box 4, Canberra ACT 2600, Australia. **SR** Centre for Economic Policy Research Discussion Paper: 154; Centre for Economic Policy Research, 8 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 41. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 211. **KW** Dynamic Specification. Long-Run Models. Time Series. Cointegration. Non-Stationarity.

AB This paper discusses the best way to formulate and estimate a dynamic econometric model when interest focuses mainly upon its long-run properties. Using results derived for the more general context of transformed regression models, it is shown how point estimates and the standard errors of long-run multipliers and long-run structural coefficients can be obtained using standard estimation methods. It is argued that such formulations are preferable to other specifications such as the error correction model. If the explanatory variables that enter the long-run solution are trend-stationary then it is found that no harm is done to the asymptotic properties of the long-run coefficients by omitting short-run dynamics entirely, though this is not recommended in practice. The

results of this paper are related to the concept of co-integration and to the work of Engle and Granger. Finally, a new methodology for the construction of dynamic models is proposed.

PD January 1987. **TI** Dynamic Specification, The Long Run and the Estimation of Transformed Regression Models. **AU** Wickens, Michael; Breusch, Trevor S. **AA** Wickens: Department of Economics, University of Southampton. Breusch: The Australian National University. **SR** Centre for Economic Policy Research Discussion Paper: 154; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 41. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 211. **KW** Dynamic Specification. Long-Run Models. Non-Stationary Time Series. Co-Integration Theory. Cointegration.

AB This paper discusses the best way to formulate and estimate a dynamic econometric model when interest focuses mainly upon its long-run properties. Using results derived for the more general context of transformed regression models, it is shown how point estimates and the standard errors of long-run multipliers and long-run structural coefficients can be obtained using standard estimation methods. It is argued that such formulations are preferable to other specifications such as the error correction model. If the explanatory variables that enter the long-run solution are trend-stationary then it is found that no harm is done to the asymptotic properties of the long-run coefficients by omitting short-run dynamics entirely, though this is not recommended in practice. The results of this paper are related to the concept of co-integration and to the work of Engle and Granger. Finally, a new methodology for the construction of dynamic models is proposed.

Wildasin, David E.

TI Ex Post versus Ex Ante Optimal Policies for Risky Activities. **AU** Boadway, Robin W.; Wildasin, David E.

Wilde, Louis L.

TI Are we a Nation of Tax Cheaters? New Econometric Evidence on Tax Compliance. **AU** Dubin, Jeffrey A.; Graets, Michael J.; Wilde, Louis L.

Wilson, Charles

TI The War of Attrition in Continuous Time With Complete Information. **AU** Hendricks, Ken; Weiss, Andrew; Wilson, Charles.

Wolf, Charles

PD December 1985. **TI** The Changing Balance - South and North Korean Capabilities for Long-Term Military Competition. **AU** Wolf, Charles; Henry, Donald P.; Yeh, K. C.; Hayes, James H.; Schank, John; Sneider, Richard L. **AA** Rand Corporation. **SR** Rand Report: R-3305/1-NA; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. **PG** 70. **PR** No Charge. **JE** 114, 121, 133. **KW** Korea. Military Capability. Economic Capacity. Economic Development.

AB This report has two principal purposes: to analyze

South Korea's economic, technological, and political-social capabilities for long-term competition with North Korea, and to evaluate the relative capabilities of the two sides. Using a variety of methods and approaches, including formal quantitative models and qualitative essays, the authors reach the following primary conclusions: (1) South Korea has substantial economic and technological advantages over North Korea; (2) the South's economic preponderance over the North is growing rapidly; (3) South Korea's economic and technological development gives it advantages in its long-term military competition with the North; (4) South Korea can increase its military self-reliance; (5) South Korea's advantages over North Korea should increase substantially in the next decade; and (6) South Korea apparently provides a larger volume of resources for defense purposes, yet has a smaller military capability than does the North.

PD August 1986. **TI** The Costs and Benefits of the Soviet Empire, 1981-1983. **AU** Wolf, Charles Jr; Crane, Keith; Yeh, K. C.; Anderson, Susan; Brunner, Edmund; Edmund. **AA** The Rand Corporation. **SR** Rand Report: R-3419-NA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 46. **PR** No Charge. **JE** 114, 052, 124. **KW** Soviet Union. International Security. Politics. Military.

AB This report extends, through 1983, estimates of the economic costs of the Soviet empire that were published in a previous RAND study (R-3073/1-NA) covering the period 1971 to 1980. Its objectives are (1) to determine the extent to which the Soviet Union allocates resources for its broad international security interests; (2) to evaluate the burden that the empire imposes on the Soviet economy, and how this burden has changed in recent years; (3) to identify gaps in the estimates as a guide to needed improvements in future data collection; (4) to evaluate the political, military, and other benefits that the Soviet leadership attributes to the empire; and (5) to consider the extent to which economic stringencies within the Soviet Union, as well as other possible explanations, account for the marked changes that occurred in empire costs between 1981 and 1983. The study finds that Soviet empire costs declined appreciably during the early 1980s, but remained substantial in both absolute and relative terms. 46 pp.

PD September 1986. **TI** Markets or Governments: Choosing Between Imperfect Alternatives. **AA** Rand Corporation. **SR** Rand Note: N-2505-SF; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 164. **PR** No Charge. **JE** 610, 024, 025. **KW** Market Failure. Nonmarket Failure. Government. Regulation. Public Sector.

AB The choice between markets and governments in the conduct of economic affairs is one of the cardinal issues of our time, but both entail predictable and serious shortcomings. Nevertheless, modern economics treats these shortcomings asymmetrically. This Note attempts to rectify this imbalance by developing and applying a theory of "nonmarket" (i.e., government) failure, so that the comparison between markets and governments can be made more systematically. The author reaches the following conclusions: (1) The choice between market and nonmarket systems is not a pure one, since actual systems

inevitably involve combinations of governments and markets; the relative involvement of each, however, greatly affects the performance and the fairness of the economic and social systems. (2) With respect to both static and dynamic efficiency criteria, markets do a much better job than governments. (3) Government can play an important role in improving and extending the functioning of markets. (4) Market forces themselves can play a significant role in improving the functioning of government.

Wong, Lung Fai

PD March 1987. TI Agricultural Productivity in China and India: A Comparative Analysis. AA Department of Agricultural and Applied Economics, University of Minnesota. SR University of Minnesota Economic Development Center Bulletin: 87-3; Department of Agricultural and Applied Economics, 352 Classroom Office Building, University of Minnesota, Saint Paul, MN 55108. PG 20. PR free. JE 710, 121, 226, 621. KW Agricultural Productivity. China. India. Technical Change. Factor Productivity. Land Productivity. Labor Productivity.

AB This study examines the trends and differences in agricultural productivity growth in China and India. It compares the rate of change in productivities and to ascertain the contributions of land, labor, livestock, machinery, and fertiliser to production, and the productivity growth as well as the role of technology in agricultural development. The results indicate strong upward trends of labor productivity and land productivity in 1960-1983 but a strong downward trend of total factor productivity in the 1960s and a slow downward trend of total productivity in the 1970s. Despite the fact that the two countries appeared to be able to achieve positive growth of total factor productivity in the late 1970s, the divergence between partial and total factor productivity continued. It suggests that inefficiency and an unbalanced cost structure are embodied in both agricultural systems. This study also indicates that technical change made little net contribution to the process of agricultural productivity growth during the period 1964-1983.

Wyplosz, Charles

TI The Economic Consequences of the Franc Poincare. AU Eichengreen, Barry; Wyplosz, Charles.

Yeh, K. C.

TI The Changing Balance - South and North Korean Capabilities for Long-Term Military Competition. AU Wolf, Charles; Henry, Donald P.; Yeh, K. C.; Hayes, James H.; Schank, John; Sneider, Richard L.

TI The Costs and Benefits of the Soviet Empire, 1981-1983. AU Wolf, Charles Jr; Crane, Keith; Yeh, K. C.; Anderson, Susan; Brunner, Edmund; Edmund.

Young, Allan R.

PD February 1987. TI Consumers' Transportation Costs: A Rationalization for Loss Leaders? AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E87-02-01; Working Paper Coordinator,

Department of Economics Sandy Hall, Blacksburg, VA 24061. PG 30. PR No Charge. JE 531, 611. KW Loss Leaders. Nonlinear Pricing. Transportation Costs. Retailers.

AB Retailers employ door prizes and loss leaders to lure customers to their stores. A rationale apparently embraced by sellers is that these tactics are justified by consumers' transportation costs: since travelling expenses create demand complementarity, loss leaders might well be optimal; profit maximization might require negative entrance fees as well. The paper examines pricing by a single "department store" or "shopping center" in a spatial context, and compares competition to collusion, uniform pricing to two-part tariffs. Inspection of first-order conditions for profit maximization indicates that transportation costs fail to justify door prizes or loss leaders under a variety of market forms. Allocative efficiency and capacity constraints are also addressed.

Yusof, Khairuddin

TI Why Were Infant and Child Mortality Rates Highest in The Poorest States of Peninsular Malaysia, 1941-75? AU Peterson, Christine; Yusof, Khairuddin; DaVanzo, Julie; Habicht, Jean Pierre.

Zeitlin, Jonathan

PD August 1986. TI Between Fordism and Flexibility: The Automobile Industry and its Workers - Past, Present and Future. AU Zeitlin, Jonathan; Tolliday, Steven. AA Department of History, Birkbeck College, London Economic Policy Group, London Strategic Policy Unit, London. SR Centre for Economic Policy Research Discussion Paper: 131; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 631, 041, 411, 611, 621, 820, 830. KW Automobile Industry. Technology. Industrial Relations. Trade Unions. Flexibility. Mass Production. International Trade. Technology Transfer.

AB Since the days of Henry Ford the automobile industry has served as a model of economic expansion and technological progress based on mass production. But from the mid-1970s, sweeping changes in markets and technology have transformed international competitive conditions and spurred automobile manufacturers in every country to experiment with new strategies based on greater product diversity and more flexible methods of production. This paper surveys the behaviour of the industry from its origins to the present in a perspective informed by current developments. It looks first at the emergence, diffusion and modification of the Fordist model in different countries, before going on to examine international variations in trade union structure, bargaining strategy and job control practices. The final section traces the recent transformations in the international automobile industry, considers the extent to which new production and marketing strategies mark a break with Fordism, and draws out the implications for industrial relations and trade union strategy.

PD February 1987. TI From Labour History to the History of Industrial Relations. AA Department of History, Birkbeck College. SR Centre for Economic

Policy Research Discussion Paper: 145; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 71. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 831, 833, 832, 631. KW Industrial Relations. Worker-Employer Relations. Employers. Institutional Forces. Social Groups. Labor History. Trade Unions.

AB This article advances a new conception of labour history as the history of industrial relations, understood broadly as the changing relationships between workers, trade unions, employers and the state. The first half of the paper examines the major interpretative traditions in British labour history, from the Webbs and the 'Oxford School' to the postwar social historians and the 'rank-and-filists'. It shows that despite their many differences, both institutionalists and social historians explain the development of labour institutions by reference to the objective interests of social groups, and goes on to raise some theoretical objections to this form of explanation. The second half of the paper draws on the findings of recent research on the history of work and industrial relations in late nineteenth and twentieth century Britain to argue that relationships between workers and employers were shaped less by informal groups or spontaneous social and economical processes than by institutional forces: by organisations such as trade unions, shop stewards' committees, business enterprises, employers' associations and the state; and by the rules and procedures governing their interaction such as collective agreements, conciliation and arbitration boards, wages councils and legislation.

Zilberman, David

TI The Welfare Economics of Regulation in Revenue-Supported Industries. **AU** Lichtenberg, Erik; Zilberman, David.

Zusman, Pinhas

TI The Food Marketing System: The Relevance of Economic Efficiency Measures. **AU** Rausser, Gordon C.; Perloff, Jeffrey M.; Zusman, Pinhas.