

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.)

Adelman, Irma

PD April 1987. TI A Latent Variable Regression Model of Nineteenth Century Economic Development. AU Adelman, Irma; Lohmoller, Jan Bernd; Morris, Cynthia Taft. AA Adelman: Department of Agricultural and Resource Economics, University of California, Berkeley. Lohmoller: Free University, Berlin. Morris: Smith College. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 439; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 57. PR \$11.40. JE 112, 044, 041, 132, 621. KW Regression Model. Economic Development. Economic History. Industrial Revolution. Latent Variables. Partial Least Squares. Technology.

AB What insights can the study of the consequences of the Industrial Revolution yield for contemporary development policy in developed and developing countries? In the nineteenth century, the industrialization of Western Europe, especially Great Britain, caused a dramatic expansion in international trade, capital movements, and international migration and severely upset the previous balance of economic and political power. Different countries adapted quite differently to the changed international environment and to the new technological and trade opportunities it provided. Some adapted very successfully, others did not. Some developed, others experienced growth without development, and still others stagnated. The consequences for the working poor also varied very significantly across countries and over time. Can a model of nineteenth century growth be specified, which will explain this variety of country experiences? In the present paper, we attempt to provide and estimate such a model. The model is based on the data and hypotheses derived from the previous study of Morris and Adelman (in press) of the economic development of 23 countries from 1850 to 1914. It specifies a simultaneous equation regression model and uses latent variables to portray various economic institutions and technological development. The model characterizes the causal chain through which initial conditions, political structures, and economic institutions affected technological and economic development, economic growth, and the diffusion of benefits from growth in the nineteenth and early twentieth centuries. The structure of the model is largely recursive, and the model is estimated using the technique of partial least squares with latent variables first proposed by H. Wold (1975 onward) and the computer program developed by Lohmoller (1981).

PD April 1987. TI Macroeconomic Adjustment and

Income Distribution: Alternative Models Applied to Two Economies. 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: 385; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 36. PR \$7.20. JE 132, 212, 121, 112, 225, 023. KW Macroeconomic Adjustment. Income Distribution. Developing Countries. General Equilibrium Model. Brazil. Korea. Balance of Trade. LDCs. Closure Rules.

AB To analyze the impact of alternative macroeconomic adjustment mechanisms on the distribution of income in developing countries, we construct a CGE model that is general enough to incorporate neoclassical, neo-Keynesian, and a variety of structuralist macro closure rules. The model is applied to two economies, Brazil and Korea, with alternative macro closures both for savings-investment and for the balance of trade. We find that (1) the size distribution of income is largely insensitive to macro closure rules, (2) the functional distribution is very sensitive to macro closure rules, and (3) the balance-of-trade closure is at least as important in determining distributional outcomes as the savings-investment closure.

Allen, Robin

PD May 1987. TI Regulation and the Provision of Quality to Heterogeneous Consumers: The Case of Prospective Pricing of Medical Services. AU Allen, Robin; Gertler, Paul. AA Allen: United States Department of Justice. Gertler: Harvard School of Public Health. SR National Bureau of Economic Research Working Paper: 2269; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 913, 635, 611, 613, 921. KW Fixed Price Regulation. Medical Services. Quality of Service. Health Maintenance Organizations. HMOs. Vertical Integration.

AB This paper analyzes the welfare implications of fixed price regulation in a model in which consumers are heterogeneous and a firm can endogenously quality discriminate. The motivation for this analysis is the current move of third party payors (governmental and private insurers) toward prospective pricing of medical services. Our major result is that prospective pricing causes a distributional welfare loss. Specifically, in our model, prospective pricing induces a profit maximizing medical care provider to simultaneously provide a smaller than socially optimal level of quality to more severely ill

patients and, surprisingly, a greater than socially optimal amount of quality to less severely ill patients. Further, the distributional welfare loss does not disappear when ethically motivated deviation from profit maximization is allowed. The inefficient distribution of quality occurs because prospective payment regulation fixes the price across patients with different severities of illness but allows providers to quality discriminate. More complicated DRG pricing rules do not appear to be able to completely avoid this problem. Alternatively, vertical integration of third party payors into the direct provision of medical care is shown to be able to bypass the problem completely. This implies that the recent proliferation of vertically integrated health care organisations such health maintenance organisations, preferred provider organisations, and managed care plans by self-insuring employers are welfare improving.

Allen, Roy E.

TI U. S. Agriculture and Manufacturing: the Net Cost of Government Intervention. AU Babcock, Bruce A.; Allen, Roy E.; Schmits, Andrew.

Allen, Steven G.

PD May 1987. TI Pensions and Firm Performance. AU Allen, Steven G.; Clark, Robert L. AA North Carolina State University. SR National Bureau of Research Economics Working Paper: 2266; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 821, 824, 825, 514, 512, 811. KW Pension Plans. Employee Behavior. Labor Turnover. Worker Performance. Labor Productivity. Wages.

AB This paper examines how pension plans affect employee behavior and firm performance. Theoretically, the impact of pensions on firm performance cannot be predicted. Firms with pensions should have lower turnover rates and more efficient retirement decisions; their employees will be less likely to shirk. On the other hand, pension compensation is not very closely linked to worker performance and there is some risk that turnover may fall too much. The evidence indicates that although wages do not seem to fall with pension compensation, profit rates are not affected by pension coverage. This suggests that pension coverage is associated with higher productivity, a proposition that is supported by indirect evidence on pensions, turnover, and productivity but not by direct tests of how pension coverage and productivity are correlated.

PD May 1987. TI Unions and Efficiency in Private Sector Construction: Further Evidence. AA North Carolina State University. SR National Bureau of Economic Research Working Paper: 2254; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 634, 831, 825, 212, 824. KW Labor Unions. Productivity. Building Contractors. Translog Cost Function.

AB Previous studies using micro data to estimate the impact of unions on productivity in construction in the early 1970's have found productivity to be higher for union than nonunion contractors in the private sector. The validity of these studies has been questioned in light of the declining market share of union contractors. This study

re-examines union-nonunion productivity differences over a sample of retail stores and shopping centers built in the late 1970's. It finds that square footage put in place per hour is 51 percent greater for union than nonunion contractors. Lacking data on wage rates by occupation, the impact of unions on efficiency can be gauged only by looking at how unions affect costs, profit rates, and prices. This study finds no mean cost per square foot difference between union and nonunion contractors and offers mixed econometric evidence on translog cost functions. There is no difference in profit rates or prices between union and nonunion contractors in this sample.

Alston, Julian M.

TI Accounting for Changes in Tastes. AU Chalfant, James A.; Alston, Julian M.

Altug, Sumru

PD June 1987. TI Household Choices in Equilibrium. AU Altug, Sumru; Miller, Robert A. AA Altug: University of Minnesota and Federal Reserve Bank of Minneapolis. Miller: Carnegie-Mellon University and NORC. SR Carnegie-Mellon Graduate School of Industrial Administration Working Paper: 2-87-88; Graduate School of Industrial Administration, Carnegie-Mellon University, Schenley Park, Pittsburgh, PA 15213. PG 65. PR No Charge. JE 821, 921, 824, 023, 212. KW Consumption. Labor Supply. Wages. Unemployment. Asset Prices.

AB This paper investigates the role of aggregate shocks on household consumption and labor supply. It posits, estimates and tests a model where the equilibrium behavior of agents sometimes leads them to locate on the boundary of their respective choices sets. The framework is rich enough to nest much previous empirical work on life cycle labor supply and consumption based asset pricing. It also yields a structural interpretation of wage regressions on unemployment. An important feature of our model is that markets are complete. Consequently, aggregate shocks only enter through two price sequences, namely real wages, and a sequence comprising weighted prices for future contingent consumption claims which are ultimately realized. We examine the properties of this latter sequence, whose elements may be represented as mappings from real wages and aggregate dividends. Our empirical findings may be grouped into three. First, aggregate shocks play a significant role in determining the choices people make. Second, we reject for males some of the restrictions implicit in structural interpretations of wage unemployment regressions. Moreover when these restrictions are imposed, we find wages are countercyclical, but cannot reject the null hypothesis of no effect. Third, the null hypothesis that markets are complete is not invariably rejected. However, the orthogonality conditions associated with the asset pricing equation are rejected, even though our specification of preferences incorporates types of heterogeneity which violate the necessary conditions for aggregating to a representative agent formulation. Finally, we reject the cross equation restrictions between the labor supply of spouses implied by equilibrium behavior.

Anderson, Robert M.

PD December 1986. TI Core Allocations and Small Income Transfers. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8621; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 20. PR \$3.50. JE 021, 024. KW Core. Walrasian Equilibrium. Approximate Equilibrium. Non-Convex Preferences. Shapley-Folkman Theorem. Income Transfers. Gap-Minimising Prices.

AB We show that, given any allocation f in the core of an exchange economy, we can find small income transfers and a Walrasian allocation f^* such that most agents are indifferent between f and f^* . In addition, we can find small income transfers and an approximate Walrasian allocation f^* relative to the transfers such that all agents are indifferent between f and f^* .

Andrews, Donald W. K.

PD February 1987. TI Inference in Econometric Models with Structural Change. AU Andrews, Donald W. K.; Fair, Ray C. AA California Institute of Technology and Yale University. SR Caltech Social Science Working Paper: 636; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 58. PR No Charge. JE 211. KW Chow Test. Dynamic Model. Econometric Model. Lagrange Multiplier Test. Likelihood Ratio Test. Structural Change. Wald Test.

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.

PD May 1987. TI Laws of Large Numbers for Dependent Non-Identically Distributed Random Variables. AA California Institute of Technology and Yale University. SR Caltech Social Science Working Paper: 645; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 14. PR No Charge. JE 211, 212. KW Dependent Random Variables. Law of Large Numbers. Martingale Difference Sequence. Mixingale. Near Epoch Dependence. Non-Identically Distributed Random Variables. Strong Mixing. Asymptotic Theory.

AB This paper provides L_1 and weak laws of large numbers for uniformly integrable L_1 -mixingales. The L_1 -mixingale condition is a condition of asymptotic weak temporal dependence that is weaker than most conditions considered in the literature. Processes covered by the laws of large numbers include martingale difference, $\phi(\cdot)$, $\rho(\cdot)$, and $\alpha(\cdot)$ mixing, autoregressive moving average, infinite order moving average, near epoch dependent, L_1 -near epoch dependent, and mixingale sequences and triangular arrays. The random variables need not possess more than one moment finite and the L_1 -mixingale numbers need not decay to zero at any

particular rate. The proof of the results is remarkably simple and completely self-contained.

Arellano, Manuel

PD March 1987. TI Labour Supply and Hours Constraints. AU Arellano, Manuel; Meghir, Costas. AA Arellano: Institute of Economics and Statistics, Oxford. Meghir: Department of Economics, University College, London. SR Oxford Applied Economics Discussion Paper: 26; Institute of Economics and Statistics, Saint Cross Building Manor Road, Oxford OX1 3UL, ENGLAND. PG 37. PR No Charge. JE 820, 810, 212, 917. KW Female Labour Supply. Hours Constraints. Censoring. Truncation. Women. Wages.

AB Most labour supply studies assume that individuals can freely choose their hours of work at their (given) market wage rate. Yet such an assumption stands in contrast to individual responses found in certain surveys such as the United States Panel Study of Income Dynamics, or the United Kingdom General Household Survey. In this paper we present models that could be used to account for constraints among workers in the absence of sample separation information. We propose a switching regressions model that allows for a non zero probability that each individual in the sample is constrained. This turns out to be a useful way of incorporating demand side variables in a model for hours of work, while still identifying the underlying labour supply parameters. Furthermore we discuss appropriate diagnostic tests for the censored and truncated switching regressions model. Our present empirical results relate to a sample of working and non-working married women, drawn from the United Kingdom Family Expenditure Survey for 1981.

Arndt, Sven W.

PD May 1987. TI Real-Financial Linkages Among Open Economies. AU Arndt, Sven W.; Richardson, J. David. AA Arndt: University of California, Santa Cruz. Richardson: University of Wisconsin. SR National Bureau of Economic Research Working Paper: 2230; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 023, 431, 421, 422, 132, 433, 443. KW Structural Linkages. Intertemporal Linkages. Financial Flows. Trade. Market Structure. Current Account. Capital Account.

AB This paper integrates the contributions to a forthcoming volume of the same title by the authors. The volume analyzes and empirically examines linkages between the real and financial variables that themselves link open economies -- "linkage" thus has a double meaning. Two types of linkages are discussed. Structural linkages describe differences across economies and among sectors in market structure (competitive/oligopolistic), productivity growth, and openness to trade. Intertemporal linkages describe differences across economies and over time or circumstance in saving preferences and capital formation, government budgets, portfolio shares of "inside" and "outside" assets, and openness to mobile financial flows. Structural linkages are important chiefly for explaining sustained divergences in national competitiveness as measured by purchasing-power-parity

norms. Inter-temporal linkages also account for them, as well as for sustained divergences in current and capital-account positions, geographical growth rates, and national incomes of residents.

Artis, M. J.

PD April 1987. TI A Two-Country Model with Asymmetric Phillips Curves and Intervention in the Foreign Exchange Market. AU Artis, M. J.; Gazioglu, S. AA Artis: University of Manchester. Gazioglu: Birkbeck College. SR Centre for Economic Policy Research Discussion Paper: 172; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 22. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 420, 431, 023, 432. KW Phillips Curve. Foreign Exchange Controls. European Monetary System. Wages. Prices. Exchange Rates. Financial Integration.

AB In this paper simulation methods are employed on a two-country, rational expectations continuous-time model to explore the consequences of asymmetrical wage-price processes. As an additional feature the effects are explored of reductions in the degree of financial integration between the two countries. The set up is designed to mimic the asymmetry within the European Monetary System between the wage-price process in Germany and that in the other member countries. The results demonstrate that country differentiation in respect of the wage-price process has important leverage on the response to a variety of shocks and that reduced financial integration (mimicking foreign exchange controls) is an uncertain offset.

Ashwe, Chiichii

PD April 1987. TI A Critique of Nigeria's Revenue Sharing Scheme. AA Department of Economics, University of Jos, Nigeria. SR Australian National University Center for Federal Financial Relations Occasional Paper: 39; Centre for Research on Federal Financial Relations, Copland Building, Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. PG 48. PR No Charge. JE 325, 322, 324, 121. KW Revenue Sharing. Nigeria. Vertical Imbalances. Horizontal Imbalances. Federation.

AB The issue of revenue sharing in Nigeria as in most federal countries is a very lively topic for both popular discussion and political controversy. However, while such public interest has generated a great deal of research and publications in the older federations of the United States of America, Canada, and Australia, formal economic analysis of revenue sharing in Nigeria is generally lacking. Hence the recommendations of the eight commissions on revenue sharing in Nigeria, which reported in the relatively brief period between 1946 and 1980, have been based on rather ad hoc rules. The Commissions were, respectively, the Phillipson Commission (1946), the Hicks-Phillipson Commission (1951), the Chick Commission (1953), the Raisman Commission (1958), the Binns Commission (1965), the Dina Committee (1969), the Aboyade Technical Committee (1978), and the Okigbo Commission (1980). Public debate and policy on revenue sharing also lack a sound theoretical basis. This research is an attempt to fill this gap. The study provides a theoretical foundation for the analysis of revenue sharing, and the

theoretical framework is employed to assess the existing system of revenue sharing in Nigeria. The major conclusion of the paper is that the present arrangements for revenue sharing represent an inadequate scheme for rectifying the problems of vertical and horizontal imbalances in the Nigerian federation. Proposals for reform are made along the lines indicated by the theory.

Attanasio, Orazio

PD May 1987. TI Real Effects of Demand- and Supply-Side Policies in Interdependent Economies. AU Attanasio, Orazio; van, der Ploeg Frederick. AA Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 282; Centre for Labour Economics, London School of Economics, Houghton Street, London, WC2A 2AE, U.K. PG 42. PR No Charge. JE 133, 023, 431, 311, 321. KW International Interdependence. Supply Side Policies. Inertia. Fiscal Policy. Monetary Policy. Exchange Rates.

AB This paper formulates various small-scale two-country models with a well-developed supply-side as well as a demand-side for economies with flexible exchange rates and perfect capital mobility. It relies on a supply-side based on imperfect competition and nominal wage rigidity or overlapping wage contracts, so that in the short run fiscal and monetary policies have real effects. In the long run monetary policies have no real effects, although fiscal expansions do have real effects as the associated appreciation of the real exchange rate reduces the wedge between the producers' and consumers' wage. It follows that fiscal expansion is in the long run a "beggar-thy-neighbour" policy, although supply-side policies do improve foreign output. The transient effects of supply-side, fiscal and monetary policies are analysed with the aid of numerical rational expectations simulations. The conclusions briefly comment on the effects of tight monetary and loose fiscal United States policies on the European economies and consider the merits of a proposal to cure stagflation in Western Europe by means of a combination of supply-side policies and an expansion of aggregate demand.

PD June 1987. TI Non-Constant Variances and Foreign Exchange Risk: An Empirical Study. AU Attanasio, Orazio; Edey, Malcolm. AA Attanasio: Centre for Labour Economics, London School of Economics. Edey: Reserve Bank of Australia. SR London School of Economics Centre for Labour Economics Discussion Paper: 285; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 23. PR No Charge. JE 431, 026, 212, 132. KW Exchange Rates. Risk Premium. Conditional Heteroskedasticity. Forward Rates. Risk Aversion.

AB Attempts to explain the apparent behaviour of exchange risk premiums using the mean-variance model have not been very successful. We hypothesise that a reason for this has been the failure to account for time variation in the variability of exchange rates, and estimate a mean-variance model which incorporates this effect. We find evidence for significant multivariate heteroskedasticity, and find that the generalised model yields improved estimates of the coefficient of risk aversion.

Attaran, Mohsen

PD December 1988. TI Concentration Trends in the United States Manufacturing Sector: 1970-1984. AU Attaran, Mohsen; Saghaei, Massoud M. AA Attaran: California State College at Bakersfield. Saghaei: Drake University. SR University of Southern California Modelling Research Group Working Paper: M8647; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 27. PR No Charge. JE 611, 631. KW Entropy Technique. Asset Concentration. Profitability.

AB In this paper, Theil's entropy technique is employed to study the concentration trends in the United States manufacturing sector for the 1970-84 period. The findings suggest that changes in concentration are very small and are primarily centered in the top 100 firms. The relationship between asset concentration and profitability is also studied and some positive correlation is detected.

Austen, Smith David

PD March 1987. TI Elections, Coalitions, and Legislative Outcomes. AU Austen, Smith David; Banks, Jeffrey. AA Austen-Smith: California Institute of Technology. Banks: University of Rochester. SR Caltech Social Science Working Paper: 643; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 42. PR No Charge. JE 025, 026. KW Multi-Stage Game. Coalitions. Elections. Legislatures. Political Parties. Bargaining. Electoral Outcomes. Policy Outcomes.

AB This paper develops a multi-stage game-theoretic model of three-party competition under proportional representation. The final policy outcome of the game is generated by a non-cooperative bargaining game between the parties in the elected legislature. This game is essentially defined by the vote shares each party receives in the general election, and the parties' electoral policy positions. At the electoral stage parties and voters are strategic in that they take account of the legislative implications of any electoral outcome. We solve for equilibrium electoral positions by the parties and final policy outcomes.

PD March 1987. TI Sincere Voting in Models of Legislative Elections. AA University of Rochester and California Institute of Technology. SR Caltech Social Science Working Paper: 637; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 14. PR No Charge. JE 025, 026. KW Voting. Elections. Policy Preferences. Electoral Platform. Legislature.

AB An assumption of sincere voting for one's most preferred candidate is frequently invoked in models of electoral competition in which the elected legislature consists of more than a single candidate or party. Voters, however, have preferences over policy outcomes -- which are determined by the ex post elected legislature -- and not over candidates per se. This observation provokes the following question. For what methods of translating election results into legislative policy outcomes is sincere voting rational in the legislative election? This paper provides the answer. One of the principal implications is that for sincerity to be rational, there necessarily exists a candidate for office whose electoral platform is the final

legislative outcome, whether or not that candidate is elected to the legislature.

PD May 1987. TI Electing Legislatures. AA California Institute of Technology and University of Rochester. SR Caltech Social Science Working Paper: 644; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 47. PR No Charge. JE 025, 026. KW Electoral Competition. Multi-Member Legislature. Multi-Stage Game. Legislatures. Elections. Voting Rules. AB A "legislature" is defined to be an assembly of at least two elected officials which selects final policy outcomes. Legislative elections therefore concern the electoral choice of such an assembly. The classical two-candidate, single-district, model of electoral competition is not a legislative election in the sense of this essay. In the classical model the legislature comprises the winning candidate: this agent has monopolistic control of the legislative decision-making machinery, and implements his winning policy. With this system, voters have a straightforward "best" voting rule for any pair of candidate positions offered in the election: vote sincerely. In the multi-stage legislative electoral system, final outcomes depend on the entire composition of the legislature and the specifics of legislative decision-making. With such a system, voters' decisions are considerably less straightforward, which in turn complicates candidates' strategic choices. This paper presents a fairly technical review of the spatial-theoretic literature on legislative elections.

Azabou, Mongi

PD October 1986. TI The Wholesale Produce Market of Tunis and its Porters: A Tale of Market Degeneration. AU Azabou, Mongi; Kuran, Timur; Nabli, Mustapha. AA Nabli and Azabou: University of Tunis. Kuran: University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8643; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 31. PR No Charge. JE 121, 611, 612, 824. KW Markets. Market Institutions. Transaction Costs. Collective Action. Rent Seeking. Tunisia. Wholesale Market. Monopoly. Agricultural Produce. Cooperatives.

AB Over the past three decades, the share of Tunisia's output of fruits and vegetables passing through the capital's wholesale market has declined sharply. One reason is that, following the formation of a porters' cooperative, the cost of portage services and, hence, that of using the market has skyrocketed. In advancing this argument, the paper explores how the cooperative has managed to maintain a monopoly over portage services despite widespread dissatisfaction with its performance. In addition, it offers some thoughts on the distributional and efficiency implications of various changes engendered by the cooperative in the market's mode of operation.

PD May 1987. TI Contractual Choice in Tunisian Fishing. AU Azabou, Mongi; Bouzaine, Lotfi; Nugent, Jeffrey B. AA Azabou and Bouzaine: Universite de Tunis. Nugent: University of Southern California. SR University of Southern California Modelling-Research Group Working Paper: M8718; Department of

Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 29. PR No Charge. JE 821, 824, 632, 721, 121. KW Fishing. Share Contracts. Transaction Costs. Tunisia. Wage Contracts.

AB This paper tests the applicability of the transaction cost theory of contractual choice to the choice among wage, share and fixed rent contracts in Tunisia's fishing industry. While the advantages of share contracts which explain their dominance in the industry are identified, the exceptions in which wage or rent contracts are used are also identified and explained. Broadly speaking, the data on contractual form seem to fit the predictions of the theory rather well.

Babcock, Bruce A.

PD September 1985. TI U. S. Agriculture and Manufacturing: the Net Cost of Government Intervention. AU Babcock, Bruce A.; Allen, Roy E.; Schmitz, Andrew. AA Babcock and Schmitz: Department of Agricultural and Resource Economics, University of California, Berkeley. Allen: Department of Economics, St. Mary's College, Moraga, California. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 380; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 23. PR \$4.60. JE 631, 712, 713, 612, 711, 322, 323. KW Agriculture. United States. Agricultural Policy. Government Intervention. Manufacturing.

AB Reducing government expenditures for agriculture is the main theme of the Farm Bill debate now in progress on Capitol Hill. But the focus on actual treasury expenses obscures the true economic costs and benefits of federal farm programs. Economic theory suggests that actual treasury outlays exaggerate the economic or welfare costs of federal farm programs for corn, wheat, and rice. Treasury expenditures represent an income transfer from consumers to producers with associated welfare costs that economic analysis demonstrates to be small or insignificant compared with reported budget figures. This analysis also shows that policies involving no federal expense can impose large but hidden economic costs. The examples discussed are import quotas for sugar, steel, and automobiles where the absence of a line-item in the federal budget substantially underestimates the true economic costs borne by American consumers. This paper begins with a brief review of the major characteristics of federal farm programs for corn, rice, and wheat. The second section uses the concepts of consumer and producer surplus to analyze the economic costs and benefits of each program in turn. This analysis supports the conclusion that treasury expenditures greatly overestimate the cost of federal grain policy. The third section extends the same method of analysis to United States quota policies for steel, sugar, and automobiles. These programs impose substantial costs on American consumers even though they require no government expenditure. The analysis also shows that alternative policy tools for limiting exports confer much smaller economic cost despite their claim on the federal budget.

Baker, Paul

PD April 1987. TI Modelling Energy Demand and

Household Welfare Using Micro-Data. AU Baker, Paul; Blundell, Richard; Micklewright, John. AA Baker, Blundell: University College London. Micklewright: Queen Mary College. SR Centre for Economic Policy Research Discussion Paper: 173; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 68. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 723, 921, 212. KW Energy. Consumer Behavior. Conditional Demand. Gas. Electricity. Survey Data. U.K. AB The paper is concerned with the empirical modelling of domestic demand for energy in the United Kingdom at the level of the individual household (most previous British work has used aggregate time-series data). The paper develops a two-stage budgeting model of the household's demand for energy conditional on its ownership of durables. Preferences at both stages of the budgeting process are determined implicitly by the cost functions we specify, the almost Ideal form at the first and the Gorman Polar form at the second stage. At the second stage the household is assumed to allocate its expenditure among gas, electricity and a composite good, "other fuels". This composite good is subject to such large measurement errors in the data set concerned that it is treated as an unobserved variable. Some simplifying assumptions lead to linear estimating equations for gas and electricity consumption and it is shown how the model's structural parameters, i.e. those of household preferences, can be identified for use in the calculation of welfare gains and losses from price changes. The model is estimated using a sample of over 50,000 households drawn from the annual Family Expenditure Survey (FES) for the years 1972-83. This data has not been fully exploited in the analysis of energy demand to date. Unrestricted reduced-form estimates are presented and the diversity of implied price and income elasticities is emphasized. Both gas and electricity are found to be inferior goods (conditional on durable ownership) for over half the sample.

Baldwin, Richard E.

PD February 1987. TI Hysteresis In Import Prices: The Beachhead Effect. AA Columbia Business School/International Business. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-10; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 23. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 431, 411, 023. KW Exchange Rates. Import Prices. Hysteresis. Balance of Trade. Pass-Through.

AB United States import prices have risen only sluggishly in response to the falling dollar suggesting that hysteresis may have occurred. A structural model of this phenomena is presented. A rudimentary empirical test of the model on United States macro data provides preliminary confirmation of the model, however they are consistent with the predictions of the model.

Banks, Jeffrey

TI Elections, Coalitions, and Legislative Outcomes. AU Austen, Smith David; Banks, Jeffrey.

Bar, Ilan Avner

PD April 1987. TI The Transactions Theory of the Demand for Money: Is the Basic Assumption Correct? AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 6-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 37. PR No Charge. JE 310, 311. KW Transactions Theory. (S,s) Risk. Fixed Cost. Continuous Time Models. Discrete Time Model. Money Demand. Trigger Points. Monetary Policy. Inventory Theoretic Model.

AB Literature concerning the transactions theory of demand for money often contains the assumption that simple trigger-target rules are optimal when each financial transaction is accompanied by a fixed cost. The validity of this assumption is examined in this paper. Using an example similar to that of Miller and Orr (1966), it is shown that the optimal money rule in discrete time models of money demand may be much more complicated than the simple rules assumed to be optimal in the literature. In particular, the optimal rule might include more than two trigger points. As such, great caution might be exercised when optimality results established in the inventory literature are applied to the inventory approach to money demand. However, when considering continuous time models of money demand the optimality of simple rules is in fact valid because only two trigger points have operational relevance.

Barahona, F.

PD February 1987. TI Experiments in Quadratic 0-1 Programming. AU Barahona, F.; Junger, M.; Reinelt, G. AA Barahona: University of Waterloo, Canada. Junger and Reinelt: University of Augsburg, Germany. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 87455; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 11. PR No Charge. JE 213. KW Cutting Plane Algorithm. Polytopes. Facets. Quadratic 0-1 Programming.

AB We present computational experience with a cutting plane algorithm for 0-1 quadratic programming without constraints. Our approach is based on a reduction of this problem to a max-cut problem in a graph and on a partial linear description of the cut polytope.

Bardhan, Pranab

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

Bates, Charles

PD March 1987. TI Efficient Instrumental Variables Estimation of Systems of Implicit Heterogeneous Nonlinear Dynamic Equations with Nonspherical Errors. AU Bates, Charles; White, Halbert. AA Bates: Johns Hopkins University. White: University of California at San Diego. SR University of California at San Diego Department of Economics Discussion Paper: 87-14; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. PG 32. PR No Charge. JE 211. KW Instrumental Variables. Efficient Estimation. Serial Correlation. Heteroskedasticity.

Systems of Equations. Nonlinear Estimation. ARCH. Probit. ARMA. NLIV Estimators.

AB We provide results which allow determination of efficiency bounds for nonlinear instrumental variables estimators in contexts allowing for implicit heterogeneous nonlinear dynamic equations with nonspherical errors. The bounds are obtained as the asymptotic covariance matrices of specific NLIV estimators. These results therefore extend those of Hansen '1985 to situations other than that of stationary ergodic processes. We also provide conditions which allow construction of feasible efficient NLIV estimators. The content of our results is illustrated by three examples: a probit model with latent errors exhibiting serial correlation, an ARCH(1) model, and an ARMA(1,1) model with conditional heteroskedasticity.

Bean, Charles R.

PD March 1987. TI Employment in the British Coal Industry: A Test of the Labour Demand Model. AU Bean, Charles R.; Turnbull, Peter J. AA Bean: London School of Economics. Turnbull: University of Warwick. SR London School of Economics. Centre for Labour Economics Discussion Paper: 274; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UK. PG 36. PR No Charge. JE 824, 632, 821. KW Employment. Efficient Bargains. Coal Mining. Labor Demand. Britain. Wages. Labor Benefits. Unemployment Benefits.

AB We test the conventional model of labour demand against the alternative that bargaining takes place over both wages and employment for a time-series cross-section data set covering the British coal industry. We note the difficulty of identifying the contract curve under the alternative hypothesis and suggest the use of variables affecting the union and management status quo points as instruments for the endogenous wage. We estimate both a conventional model of employment determination and one more appropriate to an extraction industry and find that outside variables such as benefits and manufacturing wages are important in determining the level of employment in both cases.

PD May 1987. TI Sterling Misalignment and British Trade Performance. AA London School of Economics. SR Centre for Economic Policy Research Discussion Paper: 177; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 48. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 431, 421, 311, 122. KW Exchange Rates. Exports. Hysteresis. Oil Exports. Monetary Policy. Britain.

AB In the first part of this paper I use a small macroeconomic model to examine the causes of the appreciation of sterling during 1979-81. Oil takes about half of the blame. Contractionary monetary policies alone do not seem sufficient to explain the rest, but when coupled with adverse supply-side developments they seem capable of explaining both the appreciation and the associated increase in unemployment. In the second part of the paper I examine the possibility that temporary fluctuations in the real exchange rate may have a permanent effect on British export performance. Using data from 1900 to the present I find evidence that is consistent with "hysteresis" effects on both the demand

and supply side of the export market.

Beenstock, Michael

PD March 1987. TI The Balance of Payments of Oil-Importing Developing Countries: An Aggregate Econometric Analysis. AA Department of Economics, Hebrew University. SR Centre for Economic Policy Research Discussion Paper: 165; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 022, 431, 132, 212, 421, 723. KW Oil-Importing LDCs. Balance of Payments. Exchange Rates. Foreign Exchange Shortages. Capital Inflows.

AB Using annual data drawn from 1963-1983 we estimate an econometric model of the balance of payments of oil-importing LDCs. The model consists of equations for the quantities of exports and imports, unit value indices for exports and imports, capital flows, reserves and the exchange rate. An important feature of the model is the way in which shortages of foreign exchange affect imports, external borrowing and the exchange rate. A number of simulation exercises are carried out to determine the model's properties.

PD March 1987. TI An Aggregate Model of Output, Inflation and Interest Rates for the Industrialised Countries. AA Department of Economics, Hebrew University. SR Centre for Economic Policy Research Discussion Paper: 164; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 132, 134, 131, 212, 431, 441, 122. KW Commodity Prices. Oil Prices. Loanable Funds. GDP. World Capital Market. Portfolio Balance Effect.

AB We estimate an aggregate econometric model of the industrial economies using annual data drawn from the postwar period. The model includes equations for GDP, inflation, interest rates and non-oil commodity prices. GDP and inflation reflect the evolution of aggregate supply and demand while commodity prices vary directly with economic activity and real oil prices and inversely with real interest rates. The latter depend upon the supply and demand for loanable funds in the world capital market as well as portfolio balance effects and economic activity.

PD March 1987. TI The Effects of Taxes and Benefits on UK Unemployment: A Microeconomic Analysis. AU Beenstock, Michael; Parker, Michael. AA Beenstock: Hebrew University. Parker: City University Business School. SR Centre for Economic Policy Research Discussion Paper: 171; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 12. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 822, 824, 323, 212. KW Tax-Benefit Systems. Employment. Logit Model. Survey Data. Unemployment.

AB Using data from the 1981 Family Expenditure Survey we estimate a logit model for the choice between unemployment and employment, using explanatory variables such as tax and social security benefit rates. Other variables represent the characteristics of the

households in the survey and unemployment rates in the industries in which the households usually work. The complexities of the tax-benefit system are summarized by a set of budget line parameters calculated for each household. Our estimates do not suggest that employment is significantly explained by the tax-benefit system. Nevertheless, we simulate the influence of tax-benefit reforms on unemployment using an equation that attaches a moderately strong prior belief to the theory.

PD March 1987. TI Regret and Jubilation in Union Wage Bargaining. AA Hebrew University. SR Centre for Economic Policy Research Discussion Paper: 170; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 11. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 832, 831, 824, 026. KW Collective Bargaining. Unions. Labor Market. Regret Effects. Utilitarian Assumption. Wages. Jubilation Effect. AB A theoretical model of collective wage bargaining is developed in which unions set wages and employers decide employment. A novel feature of the model is that the conventional expected utility calculus is replaced by one in which regret from failed wage bargains and jubilation from successful ones influence decision-making under uncertainty. This gives rise to a series of wage bargaining rounds in which collectively determined wage rates rise and employment falls. This dynamic behaviour is not implied by conventional analyses.

PD March 1987. TI Explaining Changes in the Union Mark-up for Male Manual Workers in Great Britain, 1953-1983. AU Beenstock, Michael; Whitbread, Chris. AA Beenstock: Department of Economics, Hebrew University. Whitbread: The City University Business School, Frobisher Crescent. SR Centre for Economic Policy Research Discussion Paper: 158; 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 831, 824, 820, 023. KW Unions. Social Security. Workers. Labor Unions. Incomes Policies. AB Layard, Metcalf and Nickell have formed annual estimates of the union mark-up for unskilled males in the United Kingdom manufacturing sector over the period 1951-1983. We critically assess their estimates as an index of union power and propose a number of hypotheses that determine the union mark-up in both cyclical and secular contexts. We use their mark-up estimates to test these hypotheses. We find that the mark-up is anti-cyclical and is secularly influenced by the level of social security benefits. It tends to be higher under Conservative administrations and it varies directly with the density of union membership. It does not appear to depend on incomes policies.

Benabou, Roland

PD March 1987. TI Optimal Price Dynamics and Speculation with a Storable Good. AA CEPREMAP. SR CEPREMAP Discussion Paper: 8708; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 52. PR 25 FF. JE 020, 134. KW Inflation. Speculation. Price Uncertainty. Dynamic Game. Markov Perfect Equilibrium.

AB This paper analyses the optimal price and storage strategies on the part of, respectively, the seller of a storable good, who must keep pace with inflation but incurs a cost to changing his price, and his customers, who speculate on the timing of price adjustments to buy and store just before. The problem is modelled as a game with infinite horizon between firm and speculators. A unique Markov perfect equilibrium is shown to exist, and the resulting price and storage dynamics are fully characterized. They generally involve a phase of mixed strategies, during which the firm tries to elude speculation by injecting uncertainty into its price dynamics, while speculators store in increasing numbers, with possibly a final generalised "run" on the good. The welfare costs of inflation-generated speculation are analysed, and macroeconomic conclusions are drawn. In particular, the stochastic price policies of a large number of such firms are shown to aggregate back to a price index growing at the rate of the environment inflation in response to which they arose. Thus, a constant rate of inflation at the macroeconomic level can at the same time generate and cover up significant uncertainty and social costs at the microeconomic level. The results of the model establish that speculation can be destabilizing, even in a context of perfect information; most importantly, they provide a theoretical foundation for the often mentioned (and empirically verified) claim that inflation causes price uncertainty.

Bennett, Neil G.

PD March 1986. **TI** Black and White Marriage Patterns: Why So Different? **AU** Bennett, Neil G.; Bloom, David E.; Craig, Patricia H. **AA** Bennett: Yale University. Bloom: Harvard University. Craig: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 500; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 37. **PR** \$2.00. **JE** 841, 917. **KW** Marriage. Race. Education. Nuptiality Patterns.

AB This paper examines the process of entry into first marriage in the United States for blacks and whites. These patterns are analyzed and compared using a statistical model suitable for the analysis of survey data on age at marriage for cohorts who have yet to complete their marriage experience. Estimates of this model reveal three main differences between the first marriage patterns of black women and white women: (1) lower proportions of blacks marry than whites, (2) the proportion of women who ever-marry has declined substantially across cohorts of black women but only modestly across cohorts of white women, and (3) increased education is associated with a reduced probability of ever-marrying for white women, but an increased probability for blacks. We then explore three alternative explanations for the observed differences in the marriage patterns of black and white women. Overall, we are able to demonstrate the consistency of the racial differences in nuptiality patterns with our three alternative explanations.

PD September 1986. **TI** Commitment And The Modern Union: Assessing The Link Between Premarital Cohabitation And Subsequent Marital Stability. **AU** Bennett, Neil G.; Blanc, Ann Klimas; Bloom, David E. **AA** Bennett: Yale University. Blanc: Yale

University.

Bloom: Harvard University. **SR** Yale Economic Growth Center Discussion Paper: 512; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 39. **PR** \$2.00. **JE** 841, 921, 916, 212. **KW** Marriage. Cohabitation. Common Law Marriage. Family. Divorce. Survey Data. Hazards Model.

AB In recent years, the incidence of premarital cohabitation has increased dramatically in many countries of Western Europe and in the United States. As cohabitation becomes more common an experience, it is increasingly important to understand the links between cohabitation and other steps in the process of family formation and dissolution. We focus on the relationship between premarital cohabitation and subsequent marital stability, and analyze data from the 1981 Women in Sweden survey using a hazards model approach. Our results indicate that women who premaritally cohabit have almost 80 percent higher marital dissolution rates than those who do not cohabit. Women who live with their future husbands for over three years prior to marriage have over 50 percent higher dissolution rates than women who cohabit for shorter durations. Last, cohabitators and non-cohabitators whose marriages have remained intact for eight years appear to have dissolution rates after that time that are identical. In sum, we provide evidence that strongly suggests that the higher marital dissolution rates of cohabitators reflects their weaker commitment to the institution of marriage.

PD February 1987. **TI** Health Policy and Data Quality: The Implications of the Crossover Mortality Debate. **AA** Yale University -- Department of Sociology. **SR** Yale Economic Growth Center Discussion Paper: 530; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 22. **PR** \$2.00. **JE** 913, 917, 841, 225. **KW** Health Policy. Health Care System. Mortality Rates. Aged. Elderly Population. Children. Data. Demographic Profile.

AB In this paper we discuss the importance of data quality in the determination of health policy. The focus of our attention is the black-white crossover mortality debate -- whether the crossover between the age-specific mortality rates of blacks and whites truly exists -- and how the debate impinges on possible health policy. The consequences of resolving this debate are primarily two-fold. First, for purposes of determining (a) the nature and extent of the future demand for health care services, especially long-term care services, and (b) the distribution of public expenditures that would optimally address that demand, we must have accurate estimates of the prevalence of a range of chronic health care problems. Such estimates, in turn, can only be derived if we have an adequate demographic profile of the elderly population. Correct mortality rates are essential for reliable population projections. Second, the debate's resolution is of great importance in judging the total impact of health policy that addresses the physical and mental well-being of infants and children. Whether early-age mortality is positively or negatively correlated with old-age mortality is fundamental to our understanding of the later-life consequences of maternal and child health programs.

Berck, Peter

PD September 1985. TI The Dynamic Annihilation of a Rational Competitive Fringe by a Low-Cost Dominant Firm. AU Berck, Peter; Perloff, Jeffrey M. 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: 383; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 34. PR \$6.80. JE 611, 612, 026. KW Dominant Firm. Dynamic Annihilation. Competitive Fringe Firms. Prices. Dynamic Models. Rational Expectations. Market Entry.

AB A low-cost dominant firm will drive all competitive fringe firms out of the market if all firms have rational expectations; however, the dominant firm will not predate (price below marginal cost). While a dominant firm will not drive out fringe firms if they have myopic expectations, it may be in the dominant firm's best interests to inform the fringe. The effects of governmental intervention on the optimal path and welfare are presented.

Bernheim, B. Douglas

PD May 1987. TI Social Security Benefits: An Empirical Study of Expectations and Realizations. AA Stanford University. SR National Bureau of Economic Research Working Paper: 2257; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 915, 918, 921. KW Social Security. Retirement History Survey. Expectations. Benefits.

AB I employ data drawn from the Retirement History Survey to study the accuracy of pre-retirement expectations concerning social security benefits. The major findings of this study are as follows. First, survey responses to questions about expected benefits are reasonably noisy. However, when one properly filters out the noise, reported forecasts appear to explain roughly 60 per cent of the variance in realizations. Second, consumers do not form expectations on the basis of all available information. Proper adjustment of forecasts for information contained in concurrent social security entitlements could reduce the residual forecast error variance by roughly 15 per cent. The potential gains from incorporating other information are minimal. Third, individuals do not ignore or forget information which they have used in the past, and they tend to form all expectations on the basis of the same information. Fourth, expectations are highly accurate, given the information that people do use. Extreme optimism is uncommon. Surprisingly, expectations were not abnormally inaccurate during periods of rapid legislative change. Fifth, of various population subgroups, widows and single women tend to make both the most conservative and most accurate forecasts. Married men are least conservative and least accurate. Accuracy and conservatism are not systematically related to wealth or education. Finally, individual behavior appears to conform more closely to the predictions of theory as retirement approaches.

Berryman, Sue E.

TI Job Stability among Young Women: A Comparison of Traditional and Nontraditional Occupations.

AU Waite, Linda J.; Berryman, Sue E.

Besen, Stanley M.

TI Compatibility Standards and the Market for Telecommunications Service. AU Saloner, Garth; Besen, Stanley M.

Besley, Timothy

PD June 1987. TI Food Subsidies and Poverty Alleviation. AU Besley, Timothy; Kanbur, Ravi. AA Besley: All Souls College and Institute of Economics and Statistics, Oxford. Kanbur: University of Warwick and Woodrow Wilson School, Princeton University. SR Oxford Applied Economics Discussion Paper: 27; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 36. PR No Charge. JE 121, 914, 112, 322. KW Food Subsidies. Poverty. LDCs. Developing Nations. Targeting.

AB The issue of targeting food subsidies to achieve maximum impact on poverty in developing countries is one of great practical and policy significance. At the operational level, there exist many heuristic and intuitively justified rules of thumb which are used in policy discussions. Our task in this paper is to formulate the problem of the optimal pattern of food subsidies in a general setting where the objective is to maximize a class of poverty indices, within the framework of the modern public finance literature. Taking explicit account of the budget constraint, and of preferences and technology, we derive rules for retargeting food subsidies to reduce poverty. Many operational rules of thumb appear as special cases of the general results. The analysis thus provides not only the microfoundations of these operational rules, but also their appropriate generalizations when the conditions under which they arise are not fulfilled.

Blackburn, K.

PD 1987. TI On Speculative Currency Attacks and Exchange Rate Realignment in an Interdependent World. AA The University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8709; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. PG 21. PR No Charge. JE 451, 311, 023. KW Balance of Payments. Exchange Rates. Capital Flows. Central Bank. Floating. Monetary Policy. Overshooting. Speculative Crisis.

AB Balance of payments crises are examined in a model of two interdependent countries operating under a reserve standard. Discretionary central bank behaviour takes the form of foreign exchange intervention and taxes or subsidies on international capital flows. An exchange rate regime collapse is followed by a transitional period of floating and subsequent re-pegging of currencies at a new parity. The likelihood and timing of speculative currency attacks is shown explicitly to depend upon relative monetary policies, the exogenous world rate of growth of the reserve standard, the capital flows tax and the date at which a new parity is established. These factors also determine the dynamic behaviour of the exchange rate during the transitional period of floating and may generate

overshooting phenomena.

PD 1987. TI Credibility and Reputation in International Macroeconomic Policy Games. AA University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8702; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. PG 50. PR No Charge. JE 023, 026. KW Non-Cooperative Games. Coordination. Strategic Behavior. Credibility. Reputation. Sequential Equilibria. Asymmetric Information. Learning. Separation. Pooling.

AB A stylised analytical model of two strategically interdependent countries is used to examine game aspects of international macroeconomic policy design. In the absence of binding commitments, a single-stage non-cooperative game yields an inferior equilibrium characterised by excessively contractionary policies because of an incentive for one player to export higher prices through a surprise exchange rate appreciation. This motivates investigation into a variety of alternative but related supergames and the properties of sequential equilibria determined by strategic behaviour involving memory' and the information structure conditioning beliefs under uncertainty. The set of equilibria include reputational, pooling and separating equilibria; the strategy space involves enforcement mechanisms designed to coerce rivals into playing particular strategies; and the uncertainty may take the form of asymmetric information about players' preferences or contemporaneously unobservable stochastic disturbances, (partial) information about which is extracted using Bayesian learning. Each equilibrium defines values for prices, output and the exchange rate and identifies circumstances under which either or both countries may experience a recession from non-cooperative behaviour. It may be possible to enforce coordinated policy design through simple tit-for-tat' strategies but a further aspect of international cooperation which introduces additional complications is identified as information coordination.

Blackorby, Charles

PD January 1987. TI Cash Versus Kind, Self-Selection, and Efficient Transfers. AU Blackorby, Charles; Donaldson, David. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics, Discussion Paper: 87-01; Department of Economics, University of British Columbia #997-1873 East Mall, Vancouver, B.C. CANADA V6T 1W5. PG 21. PR JE 024, 021, 022. KW Pareto Efficiency. Incomplete Information. Distribution. Rationing.

AB This paper is about Pareto efficiency in a world of incomplete information. Second- and third-best Pareto optima are characterised when the planner is forced to rely on self-selection. But it is clear that a distributional element has appeared in a discussion of efficiency. Second-best optima that are not first-best occur when the first-best distribution is not compatible with the self-selection constraints. Thus, when the planner finds that more yams may not be transferred to Infirm because Able covets them, transfers of medical care may still be feasible and useful. That is the reason why we observe an apparent "overprovision" of medical care. A similar

phenomenon occurs with third-best. Subsidized or taxed medical care changes the distribution of well-being when incomes must be equal for self-selection reasons. These second- and third-best Pareto-optima are inconsistent with many of our intuitions. Cash is no longer better than kind, markets are not superior to rationing, "marginal willingness-to-pay equal to marginal cost" is not a good cost-benefit rule. These contradictions occur because second- and third-best considerations do not allow the (full) separation of efficiency and distribution. This suggests, therefore, that distributional considerations must be included in any welfare economics that is set in an "imperfect" world.

Blanc, Ann Klimas

TI Commitment And The Modern Union: Assessing The Link Between Premarital Cohabitation And Subsequent Marital Stability. AU Bennett, Neil G.; Blanc, Ann Klimas; Bloom, David E.

Blanchflower, David G.

PD July 1987. TI Profit Related Pay: Prose Discovered? AU Blanchflower, David G.; Oswald, Andrew J. AA Blanchflower: University of Surrey, and Centre for Labour Economics, London School of Economics. Oswald: Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 287; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 15. PR No Charge. JE 824, 825, 514. KW Profit-Sharing. Employee Share Ownership. Income Sharing. Workers.

AB The paper estimates, first, that in 1984 forty three percent of British private sector establishments had some form of profit related pay. Second, these establishments did not report better financial performance than those without such income sharing schemes.

Bloch, Ernest

PD April 1987. TI Research in Investment Banking: Some Prerequisites for Developing a Marketing Strategy. AA New York University. SR New York University Salomon Brothers Center Working Paper: 417; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 16. PR \$3.00. JE 312, 313, 314, 315. KW Banks. Securities Trading. Commercial Banking. Glass-Steagall Act.

AB Commercial bankers have had a tough time in the 1980's. Their returns on equity (ROE) have been at the low end of the spectrum of financial industries all the while the ROE of investment bankers has been at the upper end. Since commercial bankers were in the investment banking game prior to the Glass-Steagall Act of the 1930's, it seems logical to many bankers that a return to the status quo ante 1930 would bring a substantial improvement in returns. That logic is wrong. It is wrong for two powerful reasons: The first, and simplest reason is based on a disparity of scale: the size of the investment banking industry is tiny relative to the commercial banks. That means that even if all major banks get back into the investment banking game, it won't matter much in terms

of their bottom line. The second argument is a more subtle one, but it is equally as powerful: The basically risk averse style of bank decision-making will prevent most banking organizations to do the securities trading required on a scale, and with immediate, real-time decision process that is investment banking routine.

Bloom, David E.

TI Black and White Marriage Patterns: Why So Different? **AU** Bennett, Neil G.; Bloom, David E.; Craig, Patricia H.

TI Commitment And The Modern Union: Assessing The Link Between Premarital Cohabitation And Subsequent Marital Stability. **AU** Bennett, Neil G.; Blanc, Ann Klimas; Bloom, David E.

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, Gower Street. **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** 810, 821, 826, 921, 229. **KW** Intertemporal Substitution. Life-Cycle Model. Preference Restrictions. Intertemporal Separability. Panel Data Models.

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; Meghir, Costas; Ham, John. **AA** Blundell: Department of Economics, University College London, Gower Street. Ham: Department of Economics, University of Toronto, Canada. Meghir: Department of Economics, University College London, Gower Street. **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, 841. **KW** Labor Supply. Female Labor Force. Female Involuntary Unemployment. Age. Demographic Characteristics. Marginal Wage Reduction. Women.

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 United Kingdom 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.

TI Modelling Energy Demand and Household Welfare Using Micro-Data. **AU** Baker, Paul; Blundell, Richard; Micklewright, John.

Boadway, Robin W.

PD April 15, 1987. **TI** Tax-Transfer Policies and the Voluntary Provision of Public Goods. **AU** Boadway, Robin W.; Pestieau, Pierre; Wildasin, David A. **AA** Boadway: Queen's University and CORE. Pestieau: University of Lige and CORE. Wildasin: Indiana University and CORE. **SR** Queen's Institute for Economic Research Discussion Paper: 682; Institute for Economic Research Department of Economics, Queen's University, Kingston, Ontario, K7L 3N6, CANADA. **PG** 27. **PR** \$3.00 Canada; \$3.50 United States and Foreign. **JE** 323, 322, 324, 325, 320. **KW** Public Goods. Non-Cooperative Equilibrium. Tax-Transfer Policies. Distortionary Taxation. Subsidies. Fiscal Federalism.

AB The purpose of this paper is twofold. First, it extends previous models of non-cooperative private funding of pure public goods by allowing both for distortionary taxation of private goods and for subsidies based on contributions to the public goods. Second, it clarifies the type of behavioral and informational assumptions which are needed to result in neutrality of both lump-sum and distortionary policies. The analysis is developed in the context of fiscal federalism.

Bordo, Michael D.

PD May 1987. **TI** The Stochastic Properties of Velocity: A New Interpretation. **AU** Bordo, Michael D.; Jonung, Lars. **AA** Bordo: University of South Carolina. Jonung: Lund University. **SR** National Bureau of Economic Research Working Paper: 2255; National Bureau of Economic Research, 1050 Massachusetts Avenue,

Cambridge, MA 02138. PR \$2.00. JE 311, 131, 132, 123, 023. KW Velocity of Money. Random Walk. Permanent Income. Interest Rates. Money Supply.

AB A number of recent studies have concluded that velocity for the United States for the past century displays the characteristics of a random walk without drift. In this study, we confirm this result for four other countries for which we have over a century of data -- Canada, the United Kingdom, Sweden and Norway. One implication of a random walk is that past changes in velocity cannot be used to predict future changes. However, this does not mean that past changes in variables that economic theory deems important determinants of velocity cannot be used to predict future changes. In this study we find that past changes in the traditional determinants of velocity -- permanent income and interest rates, as well as a number of institutional variables, can be used to predict future changes in velocity.

Borjas, George J.

PD May 1987. TI Self-Selection and the Earnings of Immigrants. AA University of California, Santa Barbara. SR National Bureau of Economic Research Working Paper: 2248; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 823, 824, 826. KW Migration. Wages. Earnings. Skill Level. National Origin. Immigration.

AB This paper analyses the way in which the earnings of the immigrant population may be expected to differ from the earnings of the native population because of the endogeneity of the migration decision. The conditions that determine of the nature of the self-selection are derived and depend on economic and political characteristics of the sending and receiving countries. The empirical analysis shows that differences in the United States earnings of immigrants with the same measured skills, but from different home countries, are attributable to variations in conditions in the country of origin at the time of migration.

Boskin, Michael J.

PD May 1987. TI Future Social Security Financing Alternatives and National Saving. AA National Bureau of Economic Research, Stanford University. SR National Bureau of Economic Research Working Paper: 2256; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 915, 918, 221, 224, 921. KW Social Security. Retirement. OASDI. Private Saving. Investment. Capital Flows.

AB While the short-run financial status of Social Security is secure, its long-run financial status is very uncertain. The retirement and disability part of the system (OASDI) is projected to be in long-run actuarial deficit under the Social Security Administration's intermediate economic and demographic forecasts. Hospital Insurance (HI) is projected to run a large deficit, beginning in the 1990s. OASDI is projected to accrue a very large surplus over the next thirty years, peaking at almost 30 per cent of GNP. Social Security has never accrued a surplus this large; it may well be dissipated for other purposes, such as to bail out HI, fund other

programs, raise benefits, or cut taxes. These alternatives may affect net national saving, directly because Social Security surpluses or deficits are part of government sector saving and indirectly through effects on private saving or the non-Social Security part of the federal government budget. This paper documents how various systematic deviations from, or return to, pay-as-you-go finance of the Social Security system may affect net national saving. For example, under base case assumptions with respect to the non-Social Security deficit, a constant net private saving rate of 6 per cent, and long-run budget balance in the state and local government sector, the Social Security deficit offsets 40 per cent of other net national saving over the Social Security Administration's 75-year projection period. In the first 25-year sub-period, the Social Security surplus adds one-sixth to other net national saving; in the second, it offsets almost one-half; and in the third, it offsets five-sixths of other net national saving. Of course, private saving may respond to changes in Social Security's funding as may the non-Social Security balance in the federal budget. The paper presents several alternative scenarios such as benefits increasing or taxes falling during the OASDI surplus period, various stylized rules concerning the non-Social Security budget deficit, and separate balancing of HI via outlay reductions or tax increases. The results indicate that OASDI may effect net national saving substantially. For example, if benefits ratchet up during what would have been the period of the OASDI surplus, the OASDI system may subsequently offset virtually all of remaining net national saving. On the other hand, if HI is brought into balance and the OASDI surplus is allowed to accrue, Social Security will offset only about 4 per cent of other net national saving. Changes in private saving may accentuate or ameliorate the swings in the net national saving rate generated by the future financing of OASDI, but the alternative financing options will be important determinant of net national saving, and therefore of private domestic investment and international capital flows.

Bouzaine, Lotfi

TI Contractual Choice in Tunisian Fishing. AU Asabou, Mongi; Bouzaine, Lotfi; Nugent, Jeffrey B.

Boyer, Robert

PD March 1987. TI Technical Change and the Theory of "Regulation". AA CEPREMAP. SR CEPREMAP Discussion Paper: 8707; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 44. PR 20 FF. JE 621, 612, 613, 111, 824. KW Theory of Regulation. Growth. Technological Change. Economic Crisis. Accumulation Regime.

AB Basically the paper proposes an outlook the French theory of "regulation" and applies it to the issues of technological change, growth and crisis. First, the main concepts are presented: accumulation regime, institutional forms (wage labour nexus, nature of competition, State interventions, monetary and international regimes), mode of regulation, cyclical and structural crisis. Second, the role of technology in long run dynamics is investigated according to the main results obtained by previous study upon France (and United States). The viability of any accumulation regime is related to the compatibility

between a technological system and a mode of regulation. Conversely, any structural crisis is up to a discrepancy between these two factors. Nevertheless, the present crisis and that of 1929 are quite different, since they derive from very different accumulation regimes, Taylorist in one case, Fordist in the other. Finally, a research agenda is suggested. In particular, formalising the various accumulation regimes seems quite necessary, in order to assess more clearly the impact of technological change upon growth and employment.

PD March 1987. TI Some Thoughts About the Present Crisis. AA CEPREMAP. SR CEPREMAP Discussion Paper: 8706; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 52. PR 25 FF. JE 133, 131, 111, 821, 824, 044. KW Growth. Crisis. Unemployment. Economic Policy. Technological Change. Industrial Relations. Regulation Theory. Income Distribution.

AB A brief review of recent literature suggests that most economic theories are experiencing a lot of troubles in dealing with the concept of crisis. Maybe they insist too much upon short run analyses and neglect a revival in growth theories, whereas the so-called Kondratieff waves lack any sound analytical explanation. Thus, the interpretation of the French "regulation" theory is synthesised via the presentation of a very simple model of post W.W.II Fordist growth. It had two main pillars: significant returns to scale associated to a new technological system; an original wage labour nexus promoting a sharing of productivity gains. On the contrary, the crisis derives from the loss of compatibility between the productive system and income distribution. Finally, some prospective views are proposed. According to a first scenario, a lasting and general wage austerity policy and the global search for technical flexibility would induce a stabilisation but at the cost of stagnation. The various strategies promoting a "return to free market" would generally hurt growth and/or stability, the chances of success been quite few. A third scenario exhibits the potential benefits of a cooperative strategy: a new socio-technical deal between wage-earners and firm holders, if allowed by the international system, would promote a return to a faster and rather stable growth. (in French).

Bradley, Keith

PD May 1987. TI Profit Sharing in the Retail Trade Sector: The Relative Performance of the John Lewis Partnership. AU Bradley, Keith; Estrin, Saul. AA London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 279; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. PG 30. PR No Charge. JE 824, 825, 821. KW Profit Sharing. Wages. Employment.

AB Interest has been focused by the recent work of Weitsman on the potential role of profit-sharing in countering stagflation. In this paper we investigate the effects of profit-sharing on wages, employment and employment adjustment over the trade cycle by comparing the labour market behaviour of the John Lewis Partnership (JLP) with that of its four main competitors. JLP employs around 30,000 workers, who since 1970 have been paid between 13% and 24% of workers income in the

form of a profit-related bonus. We find that profit-sharing in JLP does not significantly effect the level of remuneration, but is associated with greater levels of employment. Profit-sharing also does act to increase wage flexibility, though this brings few advantages with respect to the rate of change of employment.

Braga, de Macedo Jorge

PD March 1987. TI "Locomotive" and Other Channels of Transmission Under Flexible Exchange Rates. AU Braga, de Macedo Jorge; Meerscham, David M. AA Braga de Macedo: UNL, New University of Lisbon. Meerscham: Harvard Business School. SR Centre for Economic Policy Research Discussion Paper: 166; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 20. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 023, 431. KW Exchange Rates. Income Shocks. Intertemporal Model. Locomotive. Transmission Channels. Exports. Imports.

AB This paper presents a simple model of the effects of exchange rate flexibility on the transmission of income shocks. The starting point is the traditional channel through exports and imports known as the "locomotive". The intertemporal exchange rate model presented here also allows for the effect of future internal and external shocks on home income. Furthermore, it is shown that exchange rate movements work in the opposite direction to the locomotive effect, so that a foreign boom also causes contemporaneous recessionary pressures in the home economy. The model is simulated in order to assess the relative magnitude of these transmission channels. While the adjusted locomotive channel remains important, the others cannot be neglected, especially if the home country has a negative foreign asset position.

Branson, William H.

PD March 1987. TI Smuggler's Blues at the Central Bank: Lessons from Sudan. AU Branson, William H.; de Macedo, Jorge Braga. AA Branson: Woodrow Wilson School, Princeton University, United States of America. de Macedo: UNL - New University of Lisbon. SR Centre for Economic Policy Research Discussion Paper: 161; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 023, 411, 431, 421, 422, 311. KW Stabilisation Policy. Devaluation. Black Market Premia. Smuggling. Exchange Rate Policy. Inflation.

AB The ineffectiveness of real devaluation as a stabilisation policy does not imply that the nominal exchange rate should be held constant in the face of a domestic inflation. In this circumstance, import duties and export subsidies would have to be escalated to counter the potential erosion of the trade balance. Such an escalation of trade barriers, however, generates a rising black market premium and increases the incentive to smuggle, already a pervasive problem in the African countries. As a consequence, the central bank would find it more and more difficult to hold the nominal exchange rate constant. This leads us to consider a passive exchange rate policy of stabilising the real exchange rate by moving the nominal rate in line with domestic inflation. Unless such a passive

policy is accompanied by the elimination of trade barriers, however, the black market premium will not disappear. Unless exchange rate policy and trade policy are consistent with each other, the smuggler's blues will reach the central bank. Indeed, this is not just a theoretical possibility. It is the major lesson to be drawn from the recent experience of Sudan.

Brennan, Geoffrey

PD May 1987. TI Local Government Finance. AA Australian National University. SR Australian National University Center for Federal Financial Relations Occasional Paper: 41; Centre for Research on Federal Financial Relations, Copland Building, Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. PG ix + 63. PR No Charge. JE 325, 324. KW Local Government. Equalization. Finance. Grants. Taxation. Property Tax. Australia. AB Local government has never been a major mover in Australian fiscal affairs. Its expenditure functions are modest compared with most other federal systems (most notably the United States) and its taxing powers are restricted to the "local rate" (a property tax) and revenues derived from the quasi-monopoly provision of certain local services. All the same, local government is an important object of study - if only to determine why it is that its role is so slight in Australia compared with elsewhere. Moreover, in recent times, there has been renewed interest in local government by the Commonwealth, as evidenced by the establishment of the National Inquiry into Local Government Finance in 1984 (the "Self Report") and the discussion surrounding its release in 1985. Professor Self provides a backward look over the Report and its subsequent reception. In addition to the Self paper, David Moye provides an interesting discussion of the activities of the Local Government Grants Commissions that were set up in the early years of Fraser's Liberal-National Party Coalition government, to allocate federal grants to the States for local government activity among the local governments. To complete the fiscal picture, Norm Thomson provides a discussion of the local property tax - local "rates" in Australian parlance - as a revenue-raising instrument. Formal commentaries are provided by Mike Gallagher, Peter Groenewegen and Bert Prowse together with a collection of the lengthier comments that surfaced in the informal discussion of the papers, and a brief reply by David Moye is also included.

Brenner, Menachem

PD March 1987. TI The Valuation of Stock Index Options. AU Brenner, Menachem; Courtadon, Georges; Subrahmanyam, Marti. AA Brenner: New York University and Hebrew University. Courtadon: Shearson Lehman Brothers. Subrahmanyam: New York University. SR New York University Salomon Brothers Center Working Paper: 414; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 54. PR \$3.00. JE 313. KW Stock Market Index. Options. Futures Contracts. Stock Prices. Interest Rates. Volatility. Valuation. Risk. AB The most recent innovations in the equity options market are options on stock market indices, both on the

spot and on futures contracts. Although the stock index options markets have been very successful, there has been very little research dealing directly with the valuation of these instruments, either at a theoretical, or an empirical, level. An examination In this paper, we analyze stock index option valuation in the context of three issues. Since each of these issues is rather complex, we consider them one at a time. In Section II, we compare the effect on option valuation and exercise policy of the actual dividend stream on stock indices versus a continuous dividend stream. The actual dividend streams for two different indices, NYSE and MMI, are used for these comparisons. Section III deals with the effect of interest rate volatility on valuation. We model the direct effect of interest rate volatility on the value and volatility of the stock index and contrast this with previous models in the literature. In Section IV, we model the uncertainty of the basis and its effect on the valuation of index options. Finally, in Section V, we offer some conclusions and conjectures regarding basis risk and cash settlement.

Breusch, Trevor S.

PD February 1987. TI Efficient Estimation Using Panel Data. AU Breusch, Trevor S.; Mizon, Grayham E.; Schmidt, Peter. AA Breusch: Australian National University. Mizon: University of Southampton, University of California, San Diego. Schmidt: Michigan State University. SR Michigan State Econometrics and Economic Theory Workshop Paper: 8608; Department of Economics, Michigan State University, East Lansing, MI 48824. PG 28. PR No Charge. JE 211, 210. KW Panel Data. Instrumental Variables. Pooled Data. Two Stage Least Squares. AB Recent papers by Hausman-Taylor and Amemiya-MaCurdy have considered the instrumental variables estimation of a regression model using panel data, when some of the regressors may be correlated with the individual effects. In this paper we clarify the relationship between these two papers, by showing that the difference between the estimators which they suggest lies in the different ways that they use the time-varying explanatory variables which are uncorrelated with the effects. (Hausman-Taylor use each such variable as two instruments, while Amemiya-MaCurdy use each such variable as T+1 instruments.) We also succeed in writing each estimator in a form which allows it to be calculated using standard two-stage least squares software. Finally, we suggest a new estimator which uses the time-varying explanatory variables correlated with the individual effects more intensively than either of the previous estimators.

Bronars, Stephen G.

PD June 1987. TI The Effects of Rent Maximizing Unions on Why Workers Join Unions. AU Bronars, Stephen G.; Lott, John R. Jr. AA Bronar: University of California, Santa Barbara. Lott: Montana State University, Hoover Institution. SR Stanford Hoover Institute Working Paper in Economics: E-87-26; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 46. PR No Charge. JE 831, 832, 212, 824. KW Rent-Seeking. Wage Differentials. Labor Unions. Union Status Models.

AB Recent studies of union wage gains correct for selectivity bias by estimating a union membership probit model. The usual interpretation of this probit model is that it measures the supply response of workers to changes in the union wage differential. This paper challenges this interpretation of union status models for several reasons. First, union status models ignore the fact that rent-seeking prospective members have an incentive to bid up entry costs (through queues) so that higher union wage gains make union jobs more difficult and costly to obtain. Union status models also ignore the impact of labor demand conditions and union objectives on the observed combination of wage gains and membership decisions. We show that the observed positive correlation between wage gains and the propensity to join a union underestimates the size of the true supply response, and furthermore the standard presumption by economists that higher union wages cause firms to substitute toward higher quality workers is incorrect under most plausible assumptions. We argue that the union/nonunion wage differential tells us more about the social cost of unions than the gain to an individual worker from union membership.

Brunner, Karl

PD January 1987. **TI** The Perception of Man and the Conception of "Society": Two Approaches to Understand Society. **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: GPB87-02; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 43. **PR** NC single copies 50 cents each paper beyond 5 in each order. **JE** 020, 011. **KW** Economic Man. Sociological Man. Society. Social Science.

AB The social sciences offer two distinct approaches to understand society. One originated with the Scottish moral philosophers and shaped economics. The other emerged from the French enlightenment and influenced sociology. The two approaches are based on radically different perceptions of man and man's relation to society. The paper explores the two alternative hypotheses and examines some major implications. It concludes that the hypothesis reaching back to the Scottish philosophers offers an opportunity for a unified approach in the social sciences.

PD February 1987. **TI** The Legacy of Keynes: The Socio-Political Vision of Keynes. **AA** William E. Simon Graduate School Business Administration, University of Rochester. **SR** University of Rochester Center for Research in Government Policy and Business Working Paper: GPB87-05; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 37. **PR** NC single copies 50 cents each paper beyond 5 in each order. **JE** 031, 023. **KW** Socialist Vision. Corporatist Proposals. Political Economy.

AB Keynes socio-political views reveal a romantic dreamer. The views contain central elements of the socialist vision combined with important strands in the social democratic and (European) conservative programs. The paper explores and assesses these congeries of ideas. It

also examines the relation with the "General Theory". Keynes socio-political exercises are best understood in the context of his "early beliefs" shaped by the philosopher G. E. Moore and reinforced by the Bloomsbury set. This context confirms the relevance of Feuerbach's prophecy made about 150 years ago, that politics will become the new religion of western man.

Buiter, Willem H.

PD November 1985. **TI** A Guide To Public Sector Debt and Deficits. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 493; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 110. **PR** \$2.00. **JE** 322, 311, 321, 134. **KW** Budget Deficits. Public Debt. Monetization. Default. Crowding Out. Fiscal Policy. Inflation.

AB The paper presents a theoretical and empirical survey of three common concerns about public sector debt and deficits. The first is based on the view that sooner or later, public sector deficits must be monetized and will therefore lead to inflation. The second concerns the possibility of explosive debt-deficit spirals and ultimately default or repudiation of the public debt. The third relates to "financial crowding out," the decline in interest-sensitive or real exchange rate-sensitive private and foreign spending resulting from the substitution of borrowing for current taxes. The final section updates the now 12-year old lament of Blinder and Solow about the misuse of various "model-free" measures of fiscal stance.

PD February 1986. **TI** Macroeconomic Responses by Developing Countries To Changes in External Economic Conditions. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 498; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 56. **PR** \$2.00. **JE** 121, 131, 133, 134, 311, 321, 431, 112. **KW** LDCs. Developing Countries. Stabilization Policy. Terms of Trade. Inflation. Exchange Rates. Fiscal Policy. Monetary Policy. Capital Controls. Income Policy.

AB The paper presents a non-technical survey of some of the issues involved in the design of stabilization policy in developing countries with special emphasis on policy responses to external shocks. First, the six most important external economic parameters of developing countries are reviewed: 1) the terms of trade, 2) the growth of world markets, 3) the cost and availability of private external finance, 4) the cost and availability of official and other concessional finance, including aid, 5) the world rate of inflation and 6) the exchange rates between the currencies of the major industrial countries. The paper then reviews the macroeconomic policy arsenal and the demand and supply effects of the various policy instruments (monetary and credit policy, the entire array of fiscal instruments, exchange rate policy, the use of exchange and capital controls and income policy). Finally there is a discussion of stabilization responses to four external shocks: a deterioration in the terms of trade, a slowdown in the rate of growth of export demand, an increase in the interest rate at which developing countries borrow abroad and an increase in the external rate of inflation. The prevalence of repressed financial markets and credit rationing makes effective demand and effective supply responses to

monetary, fiscal and exchange rate policy quite different from what they are in most of the industrial world.

PD March 1986. **TI** Borrowing To Defend The Exchange Rate and The Timing and Magnitude of Speculative Attacks: Fiscal Prerequisites For a Viable Managed Exchange Rate Regime. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 499; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 33. **PR** \$2.00. **JE** 431, 433, 443, 321, 322, 311. **KW** Exchange Rates. Fiscal Debt. Borrowing. Currency Speculation.

AB The paper extends the recent literature on collapsing managed exchange rate regimes by allowing explicitly for the government budget constraint and the interest cost of servicing the public debt. The policy experiment that is analysed is the decision by a government to replenish its stock of foreign exchange reserve through a once-off open market sale of bonds. Without a fundamental fiscal correction (i.e. a decision to reduce the primary (non-interest) deficit by an amount equal to the increase in the interest cost of servicing the debt) the consequences are as follows. In a deterministic model, the timing of the speculative attack is brought forward (delayed) if the borrowing takes place long before (close to) the date at which without borrowing the collapse would have occurred. The magnitude of the attack (the final loss of reserves) always increases because of borrowing. In a stochastic model, borrowing reduces the probability of an early collapse and increases the likelihood of a later collapse. Under mild conditions, the expected length of the time interval until the collapse occurs is increased by borrowing.

PD May 1986. **TI** A "Gold Standard" Isn't Viable Unless Supported By Sufficiently Flexible Monetary and Fiscal Policy. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 502; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 46. **PR** \$2.00. **JE** 431, 311, 321, 023. **KW** Gold Standard. Exchange Rates. Fiscal Policy. Monetary Policy. Reserves. Speculative Runs. Public Debt.

AB The paper studies an idealised gold standard in a two-country setting. Without flexible national domestic credit expansion (DCE) policies which offset the effect of money demand shocks on international gold reserves, the gold standard collapses with certainty in finite time through a speculative selling attack against one of the currencies. Various policies for postponing a collapse are considered. When a responsive DCE policy eliminates the danger of a run on a country's reserves, the exogenous shocks disturbing the system which previously were reflected in reserve flows, now show up in the behaviour of the public debt. Unless the primary (non-interest) government deficit is permitted to respond to these shocks, the public debt is likely to rise (or fall) to unsustainable levels. For the idealised gold standard analysed in the paper, viability can be achieved only through the active and flexible use of monetary and fiscal policy.

PD August 1986. **TI** Granger-Causality and Policy Ineffectiveness: A Rejoinder. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper:

513; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 11. **PR** \$2.00. **JE** 133, 211, 212. **KW** Granger Causality. Policy Instruments. Policy Feedback Rules.

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 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 than that used by the public. 3. The controller may not have perfect specifications and estimates of models of the economy. The analysis confirms that Granger-causality tests are uninformative about the presence, absence, degree or kind of policy (in)effectiveness.

PD October 1986. **TI** Death, Population Growth, Productivity Growth and Debt Neutrality. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 518; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 27. **PR** \$2.00. **JE** 841, 321, 023, 322, 825. **KW** Debt Neutrality. Productivity Growth. Population Growth. Death Probability.

AB Debt neutrality is said to occur if, given a program for public spending on current goods and services over time, the real equilibrium of the economy (private consumption, investment, relative prices, etc.) is independent of the pattern of government borrowing and lump-sum taxation over time. The paper brings together work of Blanchard on individual uncertain lifetimes and debt neutrality and Weil on population growth and debt neutrality. It is shown that there will be debt neutrality if and only if the sum of the rate of growth of population and the individual probability of death equals zero. If this condition holds, non-zero rates of growth of labor productivity will not destroy debt neutrality.

PD October 1986. **TI** Fiscal Prerequisites For A Viable Managed Exchange Rate Regime: A Nontechnical Eclectic Introduction. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 519; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 35. **PR** \$2.00. **JE** 431, 311, 023, 321, 023. **KW** Exchange Rates. International Liquidity. Fiscal Policy. Monetary Policy.

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 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 "Unpleasant Monetarist Arithmetic"

model of Sargent and Wallace has ambiguous inflation implications from an increase in the fundamental deficit and is incapable of generating hyperinflation. The only runaway, explosive or unstable behavior it can exhibit is "hyperdeflation"] In the open economy, the need to maintain a managed exchange rate regime does not impose any constraint on the growth rate of domestic credit, arising through the government's need to remain solvent. Obstfeld's proposition to the contrary is due to the omission of government bonds and borrowing. There is not yet any "deep structural" theory justifying the (exogenous) lower bounds on the stock of foreign exchange reserves characteristic of the collapsing exchange rate literature. Absent such a theory of "international liquidity," one cannot model satisfactorily a foreign exchange crisis that is not at the same time a government solvency crisis. Given such a lower bound, the existence or absence of a pecuniary opportunity cost to holding reserves is shown to condition the fiscal and financial actions consistent with prolonged survival of the managed exchange rate regime.

PD October 1986. TI Structural and Stabilization Aspects of Fiscal and Financial Policy In The Dependent Economy, Part I. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 517; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 70. PR \$2.00. JE 133, 311, 321, 023. KW Stabilization Policy. Fiscal Policy. Monetary Policy. Interest Rate. Balanced Budget. Debt Neutrality.

AB The paper considers the response of a small, open dependent economy to a variety of fiscal and financial shocks as well as the influence of alternative budget balancing rules on the response of the system to such external shocks 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 behavior. 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 population growth rate plus the probability of death differ 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-term and long-term consequences for the real exchange rate, the sectoral allocation of production, the level and composition of private consumption, 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 May 1987. TI Efficient "Myopic" Asset Pricing in General Equilibrium: A Potential Pitfall in Excess Volatility Tests. AA Yale University. SR National Bureau of Economic Research Working Paper: 2251; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PR \$2.00. JE 313, 212, 023, 311. KW Financial Market Efficiency. Risk Neutrality. Asset Pricing Model. Variance Bounds.

AB Excess volatility tests for financial market efficiency maintain the hypothesis of risk-neutrality. This permits the specification of the benchmark efficient market price as the present discounted value of expected future dividends. By departing from the risk-neutrality assumption in a stripped-down version of Lucas's general equilibrium asset pricing model, I show that asset prices determined in a competitive asset market and efficient by construction can nevertheless violate the variance bounds established under the assumption of risk neutrality. This can occur even without the problems of non-stationarity (including bubbles) and finite samples. Standard excess volatility tests are joint tests of market efficiency and risk neutrality. Failure of an asset price to pass the test may be due to the absence of risk neutrality rather than to market inefficiency.

Burgess, Simon M.

PD June 1987. TI Turnover in U.K. Manufacturing. AU Burgess, Simon M.; Nickell, Stephen. AA Institute of Economics and Statistics, Oxford. SR Oxford Applied Economics Discussion Paper: 31; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 62. PR No Charge. JE 821, 823, 631. KW Quits. Layoffs. Labor Demand. Labor Market. Separations. Britain. United Kingdom.

AB A model of quits is constructed and combined with a labour demand function to produce a model of layoffs. These are combined to provide an explanation of separations. The main feature of this is the explicit incorporation of the interactions between quits and layoffs. A linear approximation and a structural form are estimated on U.K. manufacturing data 1965-1982. It is shown that the most important determinant of separations is the state of demand in the labour market, with some structural factors having a minor role to play.

Caillaud, B.

PD February 1987. TI A Note on Vertical Restraints with Provision of Distribution Services. AU Caillaud, B.; Rey, P. AA Caillaud: Massachusetts Institute of Technology. SR Unite de Recherche Document de Travail ENSAE/INSEE: 8702; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. PG 19. PR No Charge. JE 611, 022. KW Producer. Retailers. Vertical Restraints. Antitrust Policy. Principal/Agents Model.

AB The aim of this note is to shed some new light on the controversy about the use of vertical restraints in controlling retail services. It is in particular shown that, depending on the effect of the services on the consumers' welfare, vertical restraints, which are here always privately desirable, may have positive or negative consequences on the social welfare. We view here the producer/retailers

relationship as a principal/agents model, where the producer has to (indirectly) control some inobservable actions (effort) undertaken by the retailers. Vertical restraints help the producer in controlling these actions, but in some cases they may be welfare decreasing.

Caplin, Andrew S.

PD December 1986. TI Menu Costs and the Neutrality of Money. AU Caplin, Andrew S.; Spulber, Daniel F. AA Caplin: Princeton University. Spulber: University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8649; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 28. PR No Charge. JE 023, 131, 311. KW Money Neutrality. Price Rigidity. Money Growth. Price Adjustment. Pricing Decisions.

AB A model of endogenous price adjustment under money growth is presented. Firms follow (s, S) pricing policies and price revisions are imperfectly synchronized. In the aggregate, price stickiness disappears and money is neutral. The connection between firm price adjustment and relative price variability in the presence of monetary growth is also investigated. The results contrast with those obtained in models with exogenous fixed timing of price adjustment.

Card, David

PD May 1987. TI An Empirical Study of Strikes and Wages. AA Princeton University. SR Princeton Industrial Relations Section Working Paper: 221; Department of Economics, Princeton University, Princeton, NJ 08544. PG 44. PR \$2.00. JE 830, 831, 833, 824, 832, 631. KW Unions. Wages. Contracts. Manufacturing. Collective Bargaining. Signalling. Canada.

AB Is there a systematic relation between wage rates and strike outcomes? This paper addresses the question using a panel of over 2,000 collective bargaining agreements from the Canadian manufacturing sector. Contrary to the implications of recent signalling and sequential bargaining models, there is no correlation between contract real wage rates and strike duration or incidence. Furthermore, lagged strike outcomes do not affect future wage settlements. On the other hand, there is some evidence that contract wages affect future strike outcomes, and also that lagged strike outcomes affect future strike probabilities.

PD May 1987. TI Longitudinal Analysis of Strike Activity. AA Princeton University. SR National Bureau of Economic Research Working Paper: 2263; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. PR \$2.00. JE 830, 212. KW Labor Unions. Strikes. Union Contracts. Renegotiation. Strike Probability. Strike Duration. Labor Disputes.

AB This paper presents evidence on two aspects of strike activity associated with the renegotiation of union contracts: the effects of contract characteristics on dispute probabilities; and the effects of lagged strike outcomes on the incidence and duration of subsequent disputes. The empirical results show that strike probabilities are higher following a longer contract, and lower in limited reopening

situations. Strike probabilities are also higher in summer and fall than in winter and spring. Finally, strike probabilities are significantly affected by lagged strike outcomes. Relative to a peaceful settlement, strike probabilities are 10 percentage points higher following a strike of two weeks or less, and 5 to 7 percentage points lower following a longer dispute.

Carney, Maureen

TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John.

Chalfant, James A.

PD February 1987. TI Accounting for Changes in Tastes. AU Chalfant, James A.; Alston, Julian M. 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: 402 Rev.; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 27. PR \$5.40. JE 022, 921, 212, 711. KW Consumer preferences. Taste Changes. Demand Systems Approach. Revealed Preference. Nonparametric Approach. Meat.

AB It is often asserted that there has been a shift of consumer preferences away from red meats in response to increased health consciousness. Econometric studies seem to have provided some empirical support for this notion, but there is no consensus. Testing for changes in preferences is fraught with difficulties, especially when a single time series data set must be used both for estimating the parameters of demand equations and testing for structural changes in the system. There is a significant risk that specification errors will indicate taste changes where none have occurred. This paper makes use of aggregate time series data from two countries, the United States and Australia, to test for structural change in consumption patterns. We do so using revealed preference axioms and the nonparametric approach to demand analysis. For these data sets, we find that changes in consumption can be accounted for using only relative prices and expenditures. Only when a particular functional form is imposed can the conclusion be reversed. This result suggests that errors in the specification of econometric studies of meats demand can account for findings of taste changes.

Chang, Gerard J.

PD October 1986. TI Total Domination in Block Graphs. AA National Central University, Chung-Li, Taiwan, Republic of China. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86438-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 10. PR No Charge. JE 213. KW Total Domination. Block Graph. Linear Time Algorithm. Minimum Cardinality Dominating Set.

AB A set of vertices D is a dominating set for a graph $G = (V, E)$ if every vertex in $V - D$ is adjacent to a vertex in D . A set of vertices D is a total dominating set if every

vertex in V is adjacent to a vertex in D . Chang and Nemhauser gave a linear time algorithm to find a minimum cardinality dominating set for the k th power of a block graph. This paper presents a linear time algorithm for finding a minimum cardinality total dominating set of a block graph.

PD November 1986. TI Graphs Whose Cycles are of Length r Modulo k . AU Chang, Gerard J.; Wu, Chia Shyan. AA National Central University, Chung-Li, Taiwan, Republic of China. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86439-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 14. PR No Charge. JE 213. KW (k, r) -Cycles. Depth First Search. Fundamental Cycle. Line.

AB A (k, r) -cycle graph is a graph whose cycles are of length r modulo k . Yannakakis gave a linear algorithm for recognising $(4, 0)$ -cycle graphs which he called RTUM graphs. This paper studies properties of (k, r) -cycle graphs and gives a linear algorithm for recognising (k, r) -cycle graphs with $0 < r < k$.

PD December 1986. TI Labeling Algorithms for Domination Problems in Sun-Free Chordal Graphs. AA National Central University, Chung-Li, Taiwan, Republic of China. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86442-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 15. PR No Charge. JE 213. KW K-Domination. Simplicial Vertex. Simple Vertex. Sun-Free Chordal Graph. NP-Complete.

AB A k -dominating set of a graph $G = (V, E)$ is a set of vertices D such that for every vertex x in V there exists some vertex y in D satisfying $d(x, y)$ less than or equal to k . A k -dominating set D of G is connected if the subgraph $G[D]$ induced by D is connected and total if $G[D]$ has no isolated vertex. This paper presents efficient algorithms for finding a minimum cardinality k -dominating set without taking power, connected k -dominating set and total 1-dominating set of a sun-free chordal graph. NP-complete results for these problems are also discussed.

Chari, V. V.

PD April 1987. TI Seasonalities in Security Returns: The Case of Earnings Announcements. AU Chari, V. V.; Jagannathan, Ravi; Ofer, Aharon R. AA Chari: Research Department, Federal Reserve Bank of Minneapolis and Northwestern University. Jagannathan: University of Minnesota, Minneapolis and Northwestern University. Ofer: Tel Aviv University and Northwestern University. SR Federal Reserve Bank of Minneapolis Staff Report: 110; Federal Reserve Bank of Minneapolis, 250 Marquette Avenue, Minneapolis, MN 55480. PG 38. PR No Charge. JE 313, 521. KW Survivorship Bias. Clustering. Non-Normality. Seasonality. Stock Returns.

AB An examination of the behavior of stock returns around quarterly earnings announcement dates finds a seasonal pattern: small firms show large positive abnormal returns and a sizable increase in the variability of returns around these dates. Only part of the large abnormal returns can be accounted for by the fact that firms with good news tend to announce early. Large firms show no

abnormal returns around announcement dates and a much smaller increase in variability.

Cheng, Harrison H. C.

PD August 1986. TI The Coalitional Approach to the Core Theory. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8635; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 12. PR No Charge. JE 021, 022. KW Core Allocations. Competitive Gap. Core-Walras Equivalence. Coalitions. AB The Core-Walras Equivalence is examined in a finite or infinite economy in which the competitive gap is bounded by the size of the atoms in the economy. The economy is represented by a Boolean algebra of coalitions, and coalitions rather than individual agents are taken as a primitive concept.

PD May 1987. TI The Principle of Equivalence. AA University of Southern California. SR University of Southern California Modelling-Research Group Working Paper: M8720; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 27. PR No Charge. JE 021, 024. KW Core-Walras Equivalence. Arbitrage. Coalitional Representation. Lyapunov Convexity Theorem. Allocations.

AB A general principle of obtaining equivalence of core and quasi-Walrasian allocations in nonatomic markets with an infinite number of commodities is formulated through four ingredients: the coalitional representation, the Lyapunov Convexity Theorem, the space of allocations and the set of arbitrage.

PD May 1987. TI Arbitrage Theory and Equilibrium: The Case of Unconstrained Consumption. AA University of Southern California. SR University of Southern California Modelling-Research Group Working Paper: M8719; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 24. PR No Charge. JE 021. KW Coalition Arbitrage. Commodity Arbitrage. Consumption. Coalitional Representation. Lyapunov Convexity Theorem. Commodity Space. Core-Walras Equivalence. Externality. Small Trader Theory. Walrasian Equilibrium.

AB This is the first of a series of papers exploring the role of arbitrage in the Walrasian Equilibrium Theory. We use the set of arbitrage as the central element in the equilibrium analysis. Characterisations of Walrasian allocations and core allocations are formulated in terms of the set of arbitrage. A general version of Core-Walras Equivalence result is obtained.

Chetty, V. K.

PD November 1985. TI A Dynamic Model of Aggregate Output Supply, Factor Demand and Entry and Exit for a Competitive Industry with Heterogeneous Plants. AU Chetty, V. K.; Heckman, James J. AA Chetty: Professor of Economics, Indian Statistical Institute, New Delhi. Heckman: Professor of Economics, University of Chicago and Research Associate, Program in Quantitative Economic Analysis/NORC. SR Economics

Research Center/NORC Discussion Paper: 86-10; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. PG 32. PR \$2.00; Send requests to Librarian, Economics Research Center. JE 611, 522. KW Cobb-Douglas Model. Firm Investment. Competitive Market. Market Entry. Market Exit.

AB This paper presents a dynamic model of entry and exit of firms and plants of firms in a competitive industry with heterogeneous productive units. The model generalises Houthakker's Cobb Douglas model to a dynamic setting with firm investment. The model does not justify conventional representative firm approaches to modeling aggregate production technology. Unlike conventional rigid lag models, the derived lag structure in our model depends on the economic history of the industry. Nonetheless, the model is empirically tractable. Estimates of the model on United States data indicate that the framework can account for empirically important aspects of industry dynamics of factor demand and output supply.

Cheung, Kwok Hung

TI Bargaining Structure and Strike Activity. AU Davidson, Carl; Cheung, Kwok Hung.

Chirinko, Robert S.

PD May 1987. TI Intertemporal Constraints, Shadow Prices, and Financial Asset Values. AA University of Chicago. SR National Bureau of Economic Research Working Paper: 2247; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 313, 520, 311. KW Capital. Survival Rates of Capital. Depreciation. Financial Value.

AB The conditions under which the unobserved shadow price of capital can be equated to the financial value of the firm have been developed in an important paper by Hayashi (1982). Employing a more powerful analytic method, this paper reexamines the shadow price-asset value relation in a model with a general set of intertemporal constraints. For a model with one capital good, a general relation between shadow prices and asset values is derived, and restrictive assumptions implicit in previous work are highlighted. Of particular importance is the relation between the marginal and average survival rates of capital, and the critical role of geometric depreciation. The impact of a discrete-time framework in specifying and interpreting econometric models is also explored.

Christofides, Louis N.

PD January 1987. TI Indexation, Contract Duration and Non-Contingent Wage Adjustment: A Study Based on Contract Data. AA University of Guelph and Institute of Economics and Statistics, Oxford. SR Oxford Applied Economics Discussion Paper: 19; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, UK. PG 40. PR No Charge. JE 824, 821, 832, 134, 227. KW Wage Agreements. Elasticity of Indexation. Canada. Contract Duration. Wages. Inflation.

AB A model of the elasticity of indexation, contract duration and non-contingent wage adjustment is estimated using 1978-84 Canadian wage agreements. Results suggest that the degree of indexation and contract duration are

interdependent and affected by their past values, labor market conditions and, possibly, inflation uncertainty. The correlation between the industry product prices and the CPI also affects indexation. Non-contingent wage adjustment depends on expected inflation, uncompensated past inflation, as well as duration and indexation values, past and present. This model explains total wage adjustment better than more aggregative models designed solely for that purpose.

Clark, Robert L.

TI Pensions and Firm Performance. AU Allen, Steven G.; Clark, Robert L.

Cohen, Daniel

PD October 1986. TI How Should Control Theory be Used by a Time-Consistent Government? AU Cohen, Daniel; Michel, Philippe. AA Cohen: CEPREMAP 142 Rue du Chevaleret, Paris France. Michel: Universite de Paris 1, Centre de Mathematiques Economiques, Paris, France. SR Centre for Economic Policy Research Discussion Paper: 141; 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 023, 022, 026, 323. KW Optimal Policy. Control Theory. Pre-Commitment. Time Consistency. Differential Game.

AB It has been recognized that the optimal strategy of a government is generally time-inconsistent: optimality requires that the government take into account expectations effects in the formulation of its policy and to ignore these effects when applying the policy. In order to analyse the problem, we study different solutions to a simple one-dimensional linear quadratic game. The optimal but time-inconsistent solution appears to be paradoxical: in the long term, the government plays against its objective function, in order to induce the private sector to take early corrective measures. The time-consistent solution, by contrast, is defined as a solution to the Hamilton-Jacobi-Bellman equation, i.e. as a policy where the government has no-precommitment capability. We demonstrate that this solution can be obtained by imposing the assumption that the government does not take into account the private sector's first order conditions but instead takes as given an equilibrium feedback rule. This solution is compared to a policy where the government has an "instantaneous" precommitment, to a Cournot-Nash equilibrium and to an optimal policy rule. In each case, we show how control theory should or should not be applied to calculate the equilibrium.

PD February 1987. TI The Two Critiques of Econometric Policy Evaluation. AU Cohen, Daniel; Michel, Philippe. AA Cohen: CEPREMAP. Michel: Universite de Paris I. SR CEPREMAP Discussion Paper: 8704; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. PG 23. PR 20 FF. JE 023, 132, 311, 321. KW Government Policy. Control Theory. Macroeconomics. Differential Game.

AB There are two interrelated aspects to the critique of econometric policy evaluation. The first one, spelled out by Lucas, emphasizes the fact that a change of government policy is most likely to be accompanied by a change of the

private agents decision rules. By failing to acknowledge this interdependence, the Lucas Critique of econometric policy evaluation, (henceforth the first Critique) argues that standard econometric practice is simply wrong. The second critique of econometric policy evaluation results from Kydland and Prescott's analysis. We may summarise it as follows. Even when there are no policy regime shifts, taking as invariant the decision rules of the private agents is sub-optimal for the government because the government leaves unexploited gains (since it ignores its influence on the private sector decision rules). In this paper we set up a simple linear quadratic framework in which the macroeconomic equilibrium is explicitly modelled as a differential game between a large number of small private agents and the government and we spell out the conditions under which the first critique yields the second one.

Coles, Melvyn

PD 1987. TI Seniority Rules and Efficient Contracts. AA Princeton University and University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8710; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. PG 39. PR No Charge. JE 821, 823, 832. KW Insurance. Turnover. Co-Operation. Contract Theory. Workforce.

AB Contract theory has previously concentrated on income insurance, but this paper shows that if the workforce cooperates to generate efficient turnover, income risk is, in the long run, fully diversified across the whole economy. A seniority system is sufficient to induce turnover cooperation and optimal income insurance can be provided by a simple savings strategy. It also shows that if workers have different turnover costs, the labour market segments into a primary and secondary workforce.

PD 1987. TI Efficient Contracts in a Dynamic Economy with Labour Turnover. AA Princeton University and University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8706; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. PG 37. PR No Charge. JE 821, 824, 813, 832. KW Labor Demand. Contract Theory. Wages. Labor Turnover. Saving. United Kingdom.

AB This paper extends static contract theory into the dynamic case and provides consistent short-run labour demand model of the United Kingdom, suitable for econometric testing. It shows that a redundancy compensation system, linked to overtime/short-time wages set at time-and-a-half, induces efficient turnover with asymmetric information. By moving to boom firms, workers raise their average wage, and by using an independent savings account, they can automatically insure themselves against static income shocks.

Collier, Paul

PD January 1987. TI On Compatible Trade, Monetary and Exchange Rate Policies. AA Institute of Economics and Statistics, University of Oxford. SR Oxford Applied Economics Discussion Paper: 22; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, England.

PG 36. PR No Charge. JE 431, 411, 311, 421, 422. KW Monetary Policy. Exchange Rates. Trade Liberalization. Compatible Trade. Kenya. Tanzania. Africa. International Trade. Relative Prices.

AB The paper presents a model of the exchange rate and monetary policy changes required to accompany a sustainable trade liberalisation. Adopting an exportables, importables, non-tradables aggregation, monetary and goods market equilibria are identified with respect to the two independent relative prices. The assumptions of the model are intended to characterise a developing country: the terms of trade are exogenous and subject to shocks, there is no domestic bond market, and the exportable good is not consumed domestically. As an illustration, the model is then used to explain the large changes in relative prices which occurred in Kenya and Tanzania between 1975 and 1983.

Conn, A. R.

TI A Network Penalty Method. AU Gamble, A. B.; Conn, A. R.; Pulleyblank, W. R.

Cooley, Thomas F.

PD April 1987. TI Likelihood and other Approaches to Prediction in Dynamic Models. AU Cooley, Thomas F.; Parke, William R. AA Cooley: University of Rochester. Parke: University of California, Santa Barbara. SR University of California at Santa Barbara Department of Economics Working Paper: 264; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. PG 34. PR No Charge. JE 211, 212. KW Predictive Likelihood. Forecasting. Dynamic Models. Prediction. Autoregressive Models. Forecast Errors.

AB In this paper we consider the problem of generating multiperiod predictions from simple autoregressive models. The autoregressive model constitutes a useful paradigm for many of the practical problems of prediction because it possesses a number of features that differentiate it sharply from the standard linear regression model. The important characteristics that are highlighted by this model are: 1) the sample period realisations and the unknown future realisations are not independent. 2) the role of parameter uncertainty is compounded in predictions beyond one period. 3) the distribution of forecast errors will be decidedly non-normal even though the underlying sources of uncertainty may be normally distributed. The ideal situation for the prediction problem would be to know the true density of the future observations. Unfortunately, that density depends on parameters that are unknown and must be estimated. We analyze six prediction functions - approximations of the true density - that attempt to circumvent this problem. We contrast the theoretical properties of the likelihood prediction function proposed by Cooley and Parke (1986) with certainty equivalence prediction functions, Bayesian prediction functions, Monte Carlo prediction functions and mean-squared error prediction functions. The results of a Monte Carlo study illustrate the relative performance of the alternative prediction functions for conditional predictions and for the analysis of policy interventions. The results confirm the importance of accounting for parameter uncertainty and approximating the true shape of the future density.

Courakis, A. S.

PD January 1987. TI Portfolio Theory and the Financial Sector of the LBS Model. AA Brasenose College, Oxford. SR Oxford Applied Economics Discussion Paper: 21; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 35. PR No Charge. JE 311, 212, 313. KW Portfolio Theory. Financial Sector. Structural Analysis. Asset Demand. Choice-Theoretic Paradigm.

AB In empirical studies of demand for assets, considerable emphasis is often placed on consistency of the relationships specified for estimation to the precise characteristics of functions derived from explicitly defined choice-theoretic paradigms. In this vein, the focus in this study is on the conceptual underpinnings and empirical structure of the Financial Sector of the LBS Model. At the conceptual level the analysis reveals a number of weaknesses that strongly question the claim for this model to precise choice-theoretic antecedents. Furthermore, it is shown that the perceptions of economic agents, regarding asset/liability characteristics, that the empirical structure of the model defines, are sharply at variance with what we generally believe to be true.

Courtadon, Georges

TI The Valuation of Stock Index Options. AU Brenner, Menachem; Courtadon, Georges; Subrahmanyam, Marti.

Crafts, Nick

PD December 1986. TI Long-Term Unemployment, Excess Demand and the Wage Equation in Britain, 1925-1939. AA School of Economic Studies, University of Leeds, Leeds LS2 9JT. SR Centre for Economic Policy Research Discussion Paper: 147; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 17. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 044, 134, 824. KW NAIRU. Wage Adjustment. United Kingdom.

AB The relationship between unemployment and the rate of change of money wages in interwar Britain is re-examined. It is argued that improved estimates of the wage equation can be obtained by taking account explicitly of factors which change the level of excess demand associated with the measured unemployment rate. In particular, the evidence suggests that long-term unemployment did not act as a restraint on the growth of money wages. New estimates of the wage equation imply that the NAIRU rose during the 1930s as the proportion of unemployment that was long term was higher than in the late 1920s.

Craig, Patricia H.

TI Black and White Marriage Patterns: Why So Different? AU Bennett, Neil G.; Bloom, David E.; Craig, Patricia H.

Craine, Roger

PD June 1987. TI Arbitrage q: An Equilibrium Theory of Investment. AA University of California, Berkeley. SR University of California at Berkeley

Working Paper in Economics: 8743; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley 94720. PG 44. PR \$3.50. JE 023, 520. KW Q Theory. Modigliani-Miller Theorem. Arbitrage. Investment. Tobin's Q. Financial Value. Capital Value.

AB This paper presents an arbitrage theory of investment. It shows that under the assumptions of the Modigliani-Miller theorem, the financial value of the firm equals the value of the firm's capital. This means average (Tobin's) q always equals one, and marginal q equals average q even if the firm's plant technology is strictly concave and there is a cost to adjusting capital. The data are not kind to average or marginal q models of investment. Previous work focused on technologies that drove a wedge between marginal and average q . The theory presented in this paper shows that technologies should not drive a wedge between marginal and average q . Theory and empirical evidence indicate the source of the failure is not in the specification of technologies. This paper suggests that factors that break the Modigliani-Miller theorem, such as agency costs, are probably important in explaining the empirical relationship between financial and real values.

Crane, Keith

PD December 1986. TI The Romanian Economic Mess After Ceausescu: What Can We Expect? AA The Rand Corporation. SR Rand Paper: P-7296; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 19. PR No Charge. JE 124, 052, 133, 044. KW Romania. Economic Conditions. Macroeconomic Policies. Centrally Planned Economy.

AB The next Romanian leader will face a host of economic problems bequeathed by his predecessor. Many of these problems -- such as declines in agricultural production, low capital productivity, and falling standards of living -- have been the consequence of Nicolae Ceausescu's economic policies. As a result, his successor's first order of business will probably be to change those policies that have contributed to the current economic mess. This paper speculates on what these new economic policies may be. As a background to this discussion, it reviews Ceausescu's legacy, both in terms of the current economic situation and the policies that have driven the Romanian economy to its present state.

Cubbin, J.

PD 1987. TI The Persistence of Profits in the U.K. AU Cubbin, J.; Geroski, P. AA Cubbin: Queen Mary College, London. Geroski: University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8704; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. PG 37. PR No Charge. JE 122, 133, 611. KW International Competitiveness. Profitability. Industry. United Kingdom.

AB In this paper, we hope to cast some light on the extent of "competition" in the United Kingdom. For our purposes, a "competitive" market is one where entry and imitative behaviour - actual and potential - is sufficiently strong to keep profits near "the norm". Although both are useful if noisy signals of "competitiveness", there are

several reasons for concentrating more on the speed of the process of convergence than on steady state levels of profits. On the one hand, long run economic profits are difficult to measure, and long run profits different from zero (or from some other norm) can be difficult to interpret. Further, long run steady states are of largely academic interest unless it can be shown that divergencies from them are infrequent and temporary. By contrast, it is difficult to see how even systematic biases in the measurement of profits can distort a pattern of deviations from "the norm" over time. Further, it may even be the case that phenomena like entry and exit are more directly and accurately reflected in the character of disequilibrium dynamics than in equilibrium steady states. Hence, there is at least a case to be made for examining "competition" as a process whose force is reflected in the dynamics of profitability, and that is our goal. Much as we would hope to associate "competitiveness" in this sense with the poor recent performance of the United Kingdom economy, we shall have to content ourselves here merely with charting its strength. The plan is as follows. Sections II and III contain simple, firm specific models of profitability which can be used to make inferences about the strengths of unobserved and unobservable "competitive" forces like entry, imitation, and so on. Since firms in the same industry ought to share certain common dynamics, examining the extent to which apparent rivals appear to enjoy a similar profitability experience provides a method of assessing the strength of industry wide competitive forces. In this spirit, the model of Section II is extended in Section IV to distinguish firm specific from industry wide effects, and empirical results for this second model are presented in Section V. A summary and set of conclusions appears in Section VI.

Cukierman, Alex

PD April 1987. TI The End of the Israeli Hyperinflation - An Experiment in Heterodox Stabilisation. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 7-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 87. PR No Charge. JE 134, 133, 311, 321, 322. KW Heterodox Stabilisation. Inflation. Hyperinflation, Dynamic Inconsistency. Israel. Budget Deficit. Monetary Contraction. Monetary Policy.

AB This paper describes and evaluates the July 1985 Israeli stabilisation program that reduced inflation from over 400 percent per annum to approximately 20 percent. The paper discusses the developments that led to the implementation of the program, its main features and the experience that accumulated to date with particular emphasis on the more general lessons from the program's performance. It is claimed that the heterodox nature of the program which combined a big decrease in the budgetary deficit and monetary contraction with a temporary precommitment of the paths of all major prices and wages in the economy was a major factor which contributed to the speedy disinflation. The argument is that the addition of unorthodox measures (on top of conventional measures) alleviate dynamic inconsistency problems that arise due to the interaction of a full employment minded government and unions in the

presence of staggered (and at least partially) nominal wage contracts. This is demonstrated by means of a precise theoretical example.

PD July 1987. TI Do Distortionary Taxes Induce Policies Biased Towards Inflation? - A Microeconomic Analysis. AU Cukierman, Alex; Drasen, Allan. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 14-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 21. PR No Charge. JE 323, 134, 133, 321. KW Central Bank Behavior. Inflation Bias. Public Goods. Labor Taxes.

AB Recent literature on rules and discretion has argued that distortionary labor taxes which reduce employment relative to the social optimum induce central bank policies biased towards inflation, as the government has an incentive to stimulate employment. Here we examine the microfoundations of that argument and show that when provision of public goods is modelled explicitly, distortionary taxes need not produce policies biased towards inflation. Key to this argument is that in addition to the tax distortions there is an externality arising from households taking the level of the public good as given, in contrast to the central bank which internalises the effect of a change in employment on tax collections and the amount of the public good supplied.

Damodaran, Aswath

PD March 1987. TI Information Structure in International Markets Measures and Implications. AA New York University. SR New York University Salomon Brothers Center Working Paper: 415; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 28. PR \$3.00. JE 313, 441. KW Foreign Securities. Diversification. Portfolios. Information Structures. Returns. Stock Markets. Stock Exchanges.

AB Diversification into foreign securities has been recognized as a potential source of bettering returns for portfolio managers in the United States. However the perceived information poorness of these securities markets has acted as an impediment to their wider use. There have been very few attempts in the literature to quantitatively measure the characteristics of information structures in the securities markets in other countries. This paper provides a simple, yet accurate, way of dimensioning the information structure of a firm by looking at the moments of its returns process. The methodology is used to examine the return processes of the largest firms in three stock markets -- the NYSE, the London Stock Exchange, the Tokyo Stock Exchange and the Paris Bourse. We find significant differences across the different exchanges and examine the implications for portfolio managers.

PD March 1987. TI Economic Events, Information Structure and the Return Generating Process. AA New York University. SR New York University Salomon Brothers Center Working Paper: 413; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 20. PR \$3.00. JE 521, 522, 313.

KW Investment Decisions. Information Structure. Portfolios. Returns.

AB Recent studies have highlighted the importance of the process by which information is collected and disseminated in investment decisions. This paper provides a simple, yet accurate, way of dimensioning the information structure of a firm by looking at its returns process. In particular, it relates the frequency and accuracy of, and the bias in information releases to the variance, skewness and the kurtosis in the return distribution. These findings are shown to have value to portfolio managers in making investment decisions.

PD May 1987. **TI** Information Bias: Measures and Implications. **AA** Graduate School of Business Administration, New York University. **SR** New York University Salomon Brothers Center Working Paper: 420; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 40. **PR** \$3.00. **JE** 026, 313, 512, 521. **KW** News. Information. Signaling. Financial Signals. Announcements. Weekend Effect.

AB Are firms equally likely to release good news as bad, or do they have a greater propensity to report positive over negative events? This question has been addressed both theoretically and empirically in financial literature. Financial signaling theory suggests that firms are not credible conveyors of good news because of their inclination to suppress bad news. A good measure of this bias does not exist in the literature. We provide a simple model in this paper which relates the skewness in the return process to the bias that firms show in revealing good news over bad, and show empirical support for the model's findings by relating this 'skewness measure' to relevant characteristics of the firm -- its size, the industry in which it operates and the number of analysts following the firm. We also use it to explain significant differences in whether firms choose to use financial signals, market reactions to earnings announcements and the weekend effect.

Daniels, Brian P.

TI Inflation and Expectations in Experimental Markets.
AU Plott, Charles R.; Daniels, Brian P.

Danthine, Jean Pierre

PD August 1986. **TI** Business Cycles in Switzerland (1967-1984). **AU** Danthine, Jean Pierre; Girardin, Michael. **AA** Danthine: University of Lausanne. Girardin: DRI, Incorporated, Milano. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 8607; Departement d' econometrie et d' economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne / SWITZERLAND. **PG** 28. **PR** No Charge. **JE** 131, 122, 212, 023. **KW** Business Cycles. Co-Movements. Detrending. Switzerland.

AB This goal of this paper is to provide an empirical description of business cycles in Switzerland. We adopt a Lucasian view of business cycles a set of regularities in the movements and co-movements of economic aggregates common to all decentralised economies 'Lucas (1977) and test whether Switzerland conforms to this view. To achieve such purpose we compute correlations of various types among the main aggregates. We then test their stability through time and compare with corresponding

estimates for the United States.

Davidson, Carl

PD March 1987. **TI** Bargaining Structure and Strike Activity. **AU** Davidson, Carl; Cheung, Kwok Hung. **AA** Michigan State University. **SR** Michigan State Econometrics and Economic Theory Workshop Paper: 8609; Department of Economics, Michigan State University, East Lansing, MI 48824. **PG** 45. **PR** No Charge. **JE** 830, 821, 022, 026. **KW** Bargaining. Strike Activity. Bargaining Structure. Unions. Labor Unions. Coalitions. Collective Bargaining.

AB In this paper, we examine the nature of the relationship between bargaining structure and strike activity. In particular, we focus on the implications of the fact that the amount of information revealed by a union's actions depends upon the bargaining environment in which it operates. We demonstrate that a union that represents workers at more than one firm will face a greater incentive to reject offers than an independent union. This implies that a merger of two unions or the formation of bargaining coalitions will lead to a greater level of strike activity. Evidence from three industries that experienced a recent change in bargaining structure is also presented. While the data are hardly compelling, they certainly suggest that such a relationship may exist.

Davutyan, Nurhan

PD December 1986. **TI** The Operations of the Bank of England 1890-1908: A Dynamic Probit Approach. **AU** Davutyan, Nurhan; Parke, William; Pippenger, John. **AA** Department of Economics, University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 270; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 36. **PR** No Charge. **JE** 044, 310, 432, 212. **KW** Bank of England. Dynamic Probit. Britain. Interest Rates. Central Bank. Gold Standard.

AB Using the work of Sayers and others as a foundation, we construct a single reaction function to explain the behavior of the bank rate in England under the pre World War I gold standard. Since the bank rate was changed in discrete steps and past changes influenced current decisions, we use a dynamic probit technique to estimate the Bank's reaction function. We also allow for asymmetric responses by treating increases and decreases in variables separately. Using this approach, we are able to infer how the Bank's target or desired bank rate responded to influences such as market rates, the proportion and gold flows. The most important influence on the bank rate came from market rates. When market rates fell, the target bank rate fell with them almost basis point for basis point. The response of the target bank rate to rising market rates was more sluggish. Changes in the British gold stock and the proportion of liquid assets in the Banking Department also influenced the bank rate, but the Bank's short-run response was asymmetric. A shock that reduced reserves or gold and threatened convertibility induced an immediate rise in the bank rate that was much larger and more consistent than the decline in bank rate brought about by a rise in Bank reserves or domestic gold stock. Long-run responses, however, were more symmetric

and, with the exception noted below, consistent with the conventional view of the operation of the gold standard. Like earlier work by Goodhart (1972) and Dutton (1984), our results suggest that the Bank considered the domestic economy in setting the bank rate. According to our estimates, once the bank rate exceeded 5 percent, concern about domestic trade tended to dominate the long-run determination of the target bank rate.

Day, Richard H.

PD December 1986. TI Demoeconomic Dynamics A Classical Analysis. AU Day, Richard H.; Kim, Kyoo Hong; Macunovich, Diane. AA Macunovich and Day: University of Southern California. Kim: Bowling Green State University. SR University of Southern California Modelling Research Group Working Paper: M8646; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 29. PR No Charge. JE 841, 921, 932. KW Demographics. Childrearing. Child Care Costs. Population Forecasts. Household Preferences. Birth.

AB Using a purely theoretical analysis we show how long run demoeconomic behavior depends on household preferences, productivity and the cost of childrearing. In particular a dominant trend in growth can be interspersed with periods of fluctuation as slowly moving changes in productivity, preference and child care costs push nonlinearities past crucial bifurcation points. Moreover, under "robust conditions" nonperiodic, essentially unpredictable demoeconomic behavior can occur, thus suggesting a possible explanation for persistent and substantial errors in population forecasts.

de Janvry, Alain

PD April 1987. TI International Economic Development and U.S. Agriculture. 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: 438; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 29. PR \$5.80. JE 111, 112, 712, 713, 421, 431. KW Development. United States Agriculture. Less Developed Countries. International Debt. LDCs. Growth.

AB With both the LDCs and United States agriculture in the midst of the most serious economic crisis since the 1930s, it is essential to define development strategies for the LDCs that can both stimulate growth and reduce poverty -- given the external context that these countries will have to face in the years to come -- as well as expand the export market for United States farmers. Since, as we shall argue, a strategy to reactivate LDC growth in the current international order inevitably has to promote agricultural development in the LDCs, reconciling LDC economic growth with United States farmers' interests is particularly delicate to achieve and could easily backfire on United States exports. It is just such a strategy which is outlined here. It is based on the following three fundamental propositions which I will develop in this paper: 1. There exists a renewed role for productivity growth in agriculture to serve as an engine of growth for LDC economies. 2. Agricultural growth in the LDCs is not necessarily compatible with United States farm export

interests, but a harmony of interests can be managed through proper balancing of aid packages. 3. Stimulating growth in LDC agriculture requires far more than adequate exchange rates, trade, and price policies. It also requires costly technological innovations to reduce production cost and institutional innovations to reduce transactions costs and to channel collective action toward the generation of net social gains.

de Macedo, Jorge Braga

PD March 1987. TI Portugal and Europe: The Longest Transition. AA UNL-New University of Lisbon. SR Centre for Economic Policy Research Discussion Paper: 163; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 20. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 420, 432. KW Portugal. European Community. Economic Integration. Liberalization. EC. Colonies.

AB This paper considers the Portuguese transition towards full membership of the European Community in the light of the conflicts between domestic political objectives and the process of economic integration and liberalization. The paper studies two "integration episodes", the development of an economic union between Portugal and its African colonies and the establishment of democratic socialism since then. The paper contrasts the recent economic experience of Portugal with its neighbour Spain. The view that EC membership is desirable because it ensures Portugal against dictatorship is also examined and criticized. The paper concludes by examining the lessons of the postwar experience for the latest integration episode, Portugal's transition to full EC membership.

PD March 1987. TI Currency Inconvertibility, Trade Taxes and Smuggling. AA UNL-New University of Lisbon. SR Centre for Economic Policy Research Discussion Paper: 162; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 23. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 422, 431, 421, 916. KW Smuggling. Illegal Trade. Trade Taxes. Currency Inconvertibility. Black Markets. Black Market Premium. Capital Flight. Portfolio Balance Model.

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 into 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 mark-up 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 would lead to a rising black market premium (sections 3 and 4). In Section 5 we present a model explaining the determination of export and import quantities. The model explains the production of exports and non-traded goods and the consumption of imports and non-traded goods, and

assumes that the government confiscates traded goods that are unsuccessfully smuggled. Export production may fall and welfare may rise if trade taxes have a negative effect on the relative price of exports and imports which is stronger than the positive effect on smuggled exports and imports (which is always welfare-reducing). Section 6 introduces a portfolio balance model explaining the short-run behaviour of the black market premium. In this model, rising trade taxes may be associated with a premium which increases even more rapidly if there is unreported capital flight.

TI Smuggler's Blues at the Central Bank: Lessons from Sudan. **AU** Branson, William H.; de Macedo, Jorge Braga.

Desai, Meghnad J.

PD October 1985. **TI** Financial Innovations: Measuring the Opportunity for Product Innovation. **AU** Desai, Meghnad J.; Low, William. **AA** Desai: Department of Economics, London School of Economics. **Low**: Econometrics Project, London School of Economics. **SR** London School of Economics Econometrics Programme Discussion Paper: A.58; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 35 Pages. **PR** No Charge. **JE** 310, 311, 312, 313, 314, 611. **KW** NOW Deposits. Indexed Bonds. Financial Instruments. Money Market Accounts. Financial Innovations. Oligopoly. Product Differentiation. United Kingdom.

AB There has been extensive writing on financial innovation in recent years at the academic and the policy maker levels. 'Silber (1975) (1983), FRBNY (1981-2), BOE (83) There are clearly a number of interesting aspects about the microeconomic, macroeconomic, policy and political economy aspects of financial innovations which need to be explored. If we take Silber's AER paper as a convenient starting point, we see that as far as the causes of financial innovations are concerned the main ones are (a) policy: existing regulations or legislative initiatives to relax regulations (b) inflation and uncertainty: the level and volatility of nominal and real interest rates (c) technological change: the introduction of new electronic and telecommunication facilities (d) internationalization: increasing integration of money markets. But while these causes are important, they are still only proximate ones. Even now we have only begun to scratch the surface of the question of the origins, diffusion and implications of financial innovations. The focus in this paper is on the microeconomics of financial innovations. The precise question to ask is: what are the reasons which motivate the suppliers of financial services to innovate. While this is not a surprising question, it has to our knowledge not been asked before.

PD 1986. **TI** Money, Inflation and Unemployment: An Econometric Model of the Keynes Effect. **AU** Desai, Meghnad J.; Weber, Guglielmo. **AA** Desai: Department of Economics, London School of Economics. **Weber**: Econometrics Project, London School of Economics. **SR** London School of Economics Econometrics Programme Discussion Paper: A.59; Department of Economics, London School of Economics and Political

Science, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 71 Pages. **PR** No Charge. **JE** 132, 131, 134, 212, 311. **KW** Monetary Policy. Inflation. IS-LM Model. Macroeconometric Model. Keynesian Model. Phillips Curve.

AB We have presented in this paper a small macroeconomic model. Given the fact that we wished to cover the wage price nexus in conjunction with the goods and the money markets, a five equation model is perhaps the smallest feasible. We tried to capture the dynamic disequilibrium behaviour of the data around a Keynesian macrotheoretic model. A special feature of the macrotheoretic model was the specification of the LM equation in terms of the Keynes Effect. This gave an immediate way of linking the money market with the Phillips curve variables – inflation and unemployment. By exercising stringent critical examination of our specification search procedures, we succeeded in obtaining five relationships which captured the short-run dynamics as well as sensible steady-state and long run behaviour. Our diagnostic tests confirm that no serious misspecification by way of omitted variables, serial correlation or parametric instability seems to have remained. Looked at as a system, the models yield an interesting pattern of causal interaction between inflation, unemployment and money. The equilibrium rate of unemployment is affected by money stock as well as incomes policy. The shock of import price feeds through the system in the short as well as the long-run but international monetary variables exert their influence only in the short-run. The theoretical structure of the system was a conscious departure from the new classical framework and hence misspecification tests constitute an important check on the econometric model. The pattern of long-run multipliers affords hope for a small departure from the world of classical dichotomy though much more evidence should be gathered to bolster this departure. This is accomplished by means of a fairly parsimonious model in terms of variables.

Detemple, Jerome

PD January 1987. **TI** On Multiperiod Dividend Policies Under Symmetric Information. **AU** Detemple, Jerome; Sarig, Oded. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-06; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 45. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). **JE** 521, 313. **KW** Dividend Policy. Symmetric Information. Bankruptcy. Financial Distress.

AB In this paper we characterize the optimal multiperiod dividend policy of levered firms in the presence of debt covenants. We show that whenever it is costly to be in a financial distress, the optimal dividend policy entails positive dividend slacks. In these situations the optimal dividend policy balances the immediate benefit of a dividend payout with the increased risk of incurring future costs of financial distress. Our model allows us to derive well documented empirical regularities as the rational behavior of wealth maximizing shareholders in the absence of informational asymmetries.

PD January 1987. **TI** On Multiperiod Dividend Policies Under Symmetric Information. **AU** Detemple, Jerome; Sarig, Oded. **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-06; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 45. **PR** \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). **JE** 521, 313. **KW** Dividend Policy. Symmetric Information. Bankruptcy. Financial Distress.

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Diwan, Ishac

PD May 1987. **TI** Contract Design and Credit Rationing in International Lending To LDCs. **AA** Graduate School of Business, New York University. **SR** New York University Salomon Brothers Center Working Paper: 419; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 28. **PR** \$3.00. **JE** 443, 433, 121, 431. **KW** Debt. Default. Debt Rescheduling. Mexico.

AB According to the modern theory of non-enforceable debt, default considerations lead to credit rationing. I characterize the type of loan contract that maximizes the credit ceiling when the costs and the benefits of default are uncertain. I show that the contract that corresponds to the highest ceiling is self enforceable and that it requires contingent interest payments that leave the debtor at the same utility level in all states of nature. In the case of a small two sectors economy facing terms of trade uncertainty, the highest debt ceiling corresponds to a contract in which the interest payment is increasing in the price of the exported commodity. The new Mexican debt rescheduling is interpreted in this context.

Doering, Otto

TI Domestic Farm Policy and the Gains from Trade. **AU** Schmitz, Andrew; Sigurdson, Dale; Doering, Otto.

Donaldson, David

TI Cash Versus Kind, Self-Selection, and Efficient Transfers. **AU** Blackorby, Charles; Donaldson, David.

Drasen, Allan

PD February 1987. **TI** Reciprocal Externality Models of Low Employment. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 4-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 15. **PR** No Charge. **JE** 023, 130, 131, 821. **KW** Employment. Multiple Equilibria.

Externalities. Strategic Complementarity. Coordination Failure. Unemployment.

AB The reciprocal externality or strategic complementarity approach to unemployment - where the level of activity in one sector or market depends positively on the level of activity in another market in such a way that when these feedbacks in all markets are considered simultaneously - multiple equilibria result is presented, discussed conceptually, and illustrated. Two general sources of reciprocal externalities are presented and illustrated with examples.

PD May 1987. **TI** Stabilization with Exchange Rate Management Under Uncertainty. **AU** Drasen, Allan; Helpman, Elhanan. **AA** Tel-Aviv University. **SR** National Bureau of Economic Research Working Paper: 2268; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge MA 02138. **PR** \$2.00. **JE** 133, 431, 023, 026, 321, 311. **KW** Open Economy. Stabilization Programs. Currency Devaluation. Fiscal Deficit. Current Account. Monetary Policy.

AB Stabilization programs in open economies typically consist of two stages. In the first stage the rate of currency devaluation is reduced, but the fiscal adjustment does not eliminate the fiscal deficit which causes growth of debt and loss of reserves, making a future policy change necessary. Only later, at a second stage, is this followed by either an abandonment of exchange rate management or by a sufficiently large cut in the fiscal deficit. We study how different second-stage policy changes affect economic dynamics during the first stage. These changes include tax increases, budget cuts on traded and nontraded goods, and increases in the growth rate of money. Under certainty about the timing and nature of a switch, current account developments provide information about which the policy instrument is expected to be used for stabilisation. Uncertainty about the timing of a stabilisation is shown to be important in explaining phenomena such as continuous reserve losses and the possibility that a policy change is accompanied by a surprise discrete devaluation rather than a run on reserves.

TI Do Distortionary Taxes Induce Policies Biased Towards Inflation? -- A Microeconomic Analysis. **AU** Cukierman, Alex; Drasen, Allan.

Driffill, John

PD February 1987. **TI** Macroeconomic Policy Games with Incomplete Information: Some Extensions. **AA** Department of Economics, University of Southampton. **SR** Centre for Economic Policy Research Discussion Paper: 159; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 43. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 023, 026, 134, 311. **KW** Macroeconomic Policy. Sequential Equilibrium. Time Inconsistency. Inflationary Bias. Uncertainty. Inflation. Reputation.

AB In several recent papers macroeconomic policy has been modelled in the context of a game of incomplete information. A central result of the work by Backus and Driffill and by Barro is that the uncertainty may provide an incentive for the government to maintain a socially

efficient policy of zero inflation for most of the game, without any formal precommitment, thereby avoiding the inflationary bias which would be associated with discretionary policy. This paper extends this analysis in two ways. First, it considers a model in which the uncertainty about the government's preferences is somewhat more broadly specified. Second, it considers a model in which some exogenous random shocks impinge on the economy and not only prevent the government from exercising perfect control but also prevent the private sector of the economy from observing exactly the policy measures taken by the government. The analysis of the more general model of uncertainty about preferences supports the results of Backus and Driffill and of Barro, in that the uncertainty induces low or zero inflation outcomes in the sequential equilibrium of the game. It also reconciles their results with those of Vickers who obtained a separating rather than a pooling equilibrium from a model with a very similar structure. The analysis of the model with random shocks indicates tentatively that the signal extraction problem faced by private sector agents as a result of the shocks reduces substantially the discipline on policy-makers which reputational considerations would otherwise impose.

Dubin, Jeffrey A.

PD May 11, 1987. TI Preparing for the Improbable: Safety Incentives and the Price-Anderson Act. AU Dubin, Jeffrey A.; Rothwell, Geoffrey S. AA Dubin: California Institute of Technology. Rothwell: Stanford University. SR Caltech Social Science Working Paper: 642; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PR No Charge. JE 722, 723, 621, 022, 026. KW Risk Assessment. Price-Anderson Act. Insurance. Nuclear Power. Technological Change. Innovation. Research and Development Insurance. Self Insurance. Safety.

AB The Price-Anderson Act requires commercial nuclear power plants to maintain (approximately) \$660 million in off-site accident coverage through two forms of insurance: market-provided private insurance and self-insurance in the form of retrospective assessments of reactor owners. We examine how changes in retrospective assessments influence the safety incentives of nuclear reactor owners. As one would expect, increases in self-insurance premiums increase the incentive to install safety systems more quickly. However, a more important conclusion is that self-insurance premiums as a function of reactor riskiness, rather than equal payments by reactor owners, yield a higher level of safety than under the current law.

Duffie, Darrell

PD August 1986. TI Equilibrium in Incomplete Markets: I. A Basic Model of Generic Existence. AU Duffie, Darrell; Shafer, Wayne. AA Duffie: Mathematical Sciences Research Institute and Stanford University. Shafer: University of Southern California. SR University of Southern California Modelling-Research Group Working Paper: M8636; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 26. PR No Charge. JE 021, 022. KW General Equilibrium. State

Contingent Claims. Preferences. Endowments. Securities. AB This paper demonstrates the generic existence of general equilibria in incomplete markets. Our economy is a model of two periods, with uncertainty over the state of nature to be revealed in the second period. Securities are claims to commodity bundles in the second period that are contingent on the state of nature, and are insufficient in number to span all state contingent claims to value, regardless of the announced spot commodity prices. Under smooth preference assumptions, equilibria exist except for an exceptional set of endowments and securities, a closed set of measure zero. The paper includes partial results for fixed securities, showing the existence of equilibria except for an exceptional set of endowments.

PD August 1986. TI Equilibrium in Incomplete Markets: II. Generic Existence in Stochastic Economies. AU Duffie, Darrell; Shafer, Wayne. AA Duffie: Mathematical Sciences Research Institute and Stanford University. Shafer: University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8637; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 27. PR No Charge. JE 021, 022, 026. KW General Equilibrium. Stochastic Economy. Uncertainty. Securities. Contingent Claims. Preferences.

AB This paper demonstrates the generic existence of equilibria with incomplete markets in a stochastic economy. Uncertainty is represented by an event tree. Securities that are claims to bundles of commodities and units of account at future dates, contingent on states of the world, are sold at each date and state. There is an insufficient number of securities to complete markets, even with the spanning advantages of repeated trade through time. Preferences are "smooth". We include partial results for linear restrictions on trading strategies, and show that security prices may be assigned to be the conditional expected sum of the future spot market values of dividends.

PD March 1987. TI The Consumption-Based Capital Asset Pricing Model. AU Duffie, Darrell; Zame, William. AA Duffie: Stanford University. Zame: State University of New York, Buffalo. SR Stanford Graduate School of Business Research Paper: 922; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. PG 18. PR No Charge. JE 311, 313, 021, 521. KW Capital Asset Pricing Model. General Equilibrium Theory. Asset Pricing. Intertemporal Model. Risk. Uncertainty.

AB We provide conditions on the primitives of a continuous-time economy under which there exist equilibria obeying the Intertemporal Consumption-Based Capital Asset Pricing Model (ICCAPM). We do not use a Markovian state assumption.

Edey, Malcolm

TI Non-Constant Variances and Foreign Exchange Risk: An Empirical Study. AU Attanasio, Orazio; Edey, Malcolm.

Edwards, Sebastian

PD May 1987. TI Exchange Rate Misalignment in

Developing Countries. AA University of California at Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 442; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. PG 56. PR \$2.50; checks payable to University of California Regents. JE 431, 311, 321, 133, 121, 023. KW Exchange Rates. Macroeconomic Policy. LDCs. Exchange Rate Regime. Disequilibrium. Development. AB This paper deals with several analytical issues related to exchange rate disequilibrium (i.e. overvaluation and undervaluation) in the developing countries. We first analyse the theory of equilibrium real exchange rates, defining precisely what we mean by real exchange rate misalignment. The role of macroeconomic policies under three alternative nominal exchange rate regimes is then analysed. We consider the cases of predetermined nominal exchange rates, floating nominal rates, and nonunified nominal exchange rates (i.e. dual or parallel markets). This discussion emphasizes the causal relation that goes from inconsistent macroeconomic policies to real exchange rate misalignment. We finally address the issue of real exchange rate realignment, emphasizing the role of nominal devaluations as a way of correcting real exchange rate disequilibrium.

Engel, Charles

PD December 1985. TI Tariffs, Saving, and the Current Account. AU Engel, Charles M.; Kletzer, Kenneth M. AA Engel: University of Virginia. Kletzer: Yale University. SR Yale Economic Growth Center Discussion Paper: 496; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 26. PR \$2.00. JE 421, 422, 431, 411, 522. KW Current Account. Optimal External Borrowing. Tariffs. Saving. Investment.

AB We investigate the effects of higher tariffs on the current account. Tariffs may increase or decrease investment depending on the capital intensity of the sector protected. We find that the response of saving to tariffs is sensitive to the modelling of saving behavior. In a model in which consumers' discount rate varies endogenously (in the Usawa preference form), saving falls with higher tariffs. This result may, however, be reversed in the Blanchard-Yaari type model in which consumers have uncertain lifetimes. We find that in both models the response of saving depends on a production distortion effect which changes steady-state income and an effect on steady-state expenditures.

PD February 1987. TI Saving and Investment In An Open Economy With Non-Traded Goods. AU Engel, Charles; Kletzer, Kenneth. AA Engel: University of Virginia. Kletzer: Yale University. SR Yale Economic Growth Center Discussion Paper: 527; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 23. PR \$2.00. JE 433, 443, 441, 522, 431. KW Open Economy. Savings. Investment. Capital Mobility. Interest Rates. International Borrowing. International Lending.

AB Two important but often neglected features of almost all open economies are that they trade investment goods and that some goods are non-traded. We use a dynamic model of an open economy with perfect international

mobility of financial capital and a non-traded good to address three phenomena inexplicable in more barren models. First, we show that saving and investment within a country can be linked even if the real rate of interest is equal across borders and sectors, contrary to the presumption of Feldstein and Horioka (1980). Next, we show that if the planner's time preference falls, the country may optimally borrow from, rather than lend to, foreigners. Lastly, we demonstrate that stages in the balance of payments, in which an initial borrower becomes a lender (and, possibly, an eventual creditor), are possible under optimal saving behavior. The presence of an investment good and non-traded goods play an essential role for demonstrating each of these points.

Ericsson, Neil R.

TI Assertion Without Empirical Basis: An Econometric Appraisal of Monetary Trends. in the United Kingdom by Milton Friedman and Anna J. Schwartz. AU Hendry, David F.; Ericsson, Neil R.

Ermisch, John

PD May 1987. TI Demographic Change, Economic Growth and Social Welfare in Europe. AU Ermisch, John; Joshi, Heather. AA Centre for Population Studies, London School of Hygiene. SR Centre for Economic Policy Research Discussion Paper: 179; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 64. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE 841, 913, 918, 122, 621. KW Demographic Change. Economic Growth. Welfare. Pensions. Labor Force. Fertility. Europe. Population. Life Expectancy. Technical Progress.

AB This paper examines the economic rationale for concern about the falling rate of growth of Europe's population. It also assembles demographic and economic time-series data for the countries of Eastern and Western Europe during the postwar period. The consequences of demographic developments for social welfare, broadly defined, are felt over a very long term. Issues discussed include the contribution of increases in life expectancy to social welfare; the potential effects of population growth on technical progress; and the impacts of changing age structure on intergenerational transfers and the financing of state pensions. The analysis suggests that, while the slowdown in European population growth raises some potential problems, there is no compelling case for pro-natalist policies.

Ernst, Richard L.

TI The Economic Costs of Alzheimer's Disease. AU Hay, Joel W.; Ernst, Richard L.

Estrin, Saul

TI Profit Sharing in the Retail Trade Sector: The Relative Performance of the John Lewis Partnership. AU Bradley, Keith; Estrin, Saul.

Evenson, Robert E.

PD May 1986. TI Forestry Research: A Provisional Global Inventory. AU Evenson, Robert E.; Mergen, Francois; Judd, M. A.; Putnam, J. AA Yale University.

SR Yale Economic Growth Center Discussion Paper: 503; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 42. PR \$2.00. JE 721, 722, 621. KW Forestry Research. Research Expenditures. Research Investment. Forests. Trees. Ecology.

AB Data on resources allocated to forestry research in either developing or developed countries are not widely available. This paper presents a first attempt to construct an international inventory of spending and scientist man-years devoted to forestry research. The problems inherent in collecting internationally comparable data are discussed. Country data for about 40 countries are presented and regional estimates for investment levels worldwide are given. The data show consistently low levels of research investment in the developing countries and regions of the world. Measures of research spending and manpower intensities are also presented and compared with the same measures for agricultural research. These comparisons indicate that all countries, regardless of region or income group, have been investing more in agricultural research than in forestry research. The final data section of the paper explores some specific forestry research station characteristics obtained from approximately 140 completed survey questionnaire returns. These characteristics include the distribution of research expenditures by area of research, type of tree, and funding sources; and the distribution of personnel by administrators, scientists, and technicians. The concluding section of the paper suggests both that the inventory needs to be improved and expanded and that the area of forestry research needs to be given more emphasis by individual countries and by international aid donors.

Fair, Ray C.

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

PD May 1987. TI Econometric Modeling as Information Aggregation. AU Fair, Ray C.; Shiller, Robert J. AA Cowles Foundation, Yale University. SR National Bureau of Economic Research Working Paper: 2233; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 132, 212. KW Forecasting. Information Aggregation Test. VAR. Autoregressive Components Model. Macroeconometric Models.

AB A forecast produced by an econometric model is a weighted aggregate of predetermined variables in the model. In many models the number of predetermined variables used is very large, often exceeding the number of observations. A method is proposed in this paper for testing an econometric model as an aggregator of the information in these predetermined variables relative to a specified subset of them. The test, called the "information aggregation" (IA) test, tests whether the model makes effective use of the information in the predetermined variables or whether a smaller information set carries as much information. The method can also be used to test one model against another. The method is used to test the Fair model as an information aggregator. The Fair model is also tested against two relatively non theoretical models: a VAR model and an "autoregressive components" (AC) model. The AC model, which is new in this paper,

estimates an autoregressive equation for each component of real GNP, with real GNP being identically determined as the sum of the components. The results show that the AC model dominates the VAR model, although both models are dominated by the Fair model. The results also show that the Fair model seems to be a good information aggregator.

Fanc, George

PD January 1987. TI An Optimizing Model of the Balance of Payments. AA Australian National University. SR Australian National University Working Paper in Economics and Econometrics: 143; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. PG 42. PR No Charge. JE 431, 023, 321, 322. KW Balance of Payments. Current Account. Government Expenditure. Exchange Rates.

AB An open economy model based on full optimizing behavior in all markets is used to analyze the effects on the current account of changes in government spending; in the terms of trade; in the world real interest rate; in the world rate of inflation under a fixed exchange rate regime and in the domestic rate of monetary growth under a flexible exchange rate regime. The analysis of the various shocks is simplified and unified by decomposing the effects of each shock into income and pure substitution effects. The latter are intrinsically different since they depend on changes in real and nominal interest rates and in the relative prices of traded goods. The former depend on the compensated shadow values of the shocks -- a concept borrowed from the shadow pricing literature -- and operate in exactly the same way for all shocks.

Farber, Henry S.

PD May 1987. TI The Decline of Unionisation in the United States: What Can Be Learned From Recent Experience? AA Department of Economics, Massachusetts Institute of Technology. SR National Bureau of Economic Research Working Paper: 2267; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 831, 611, 824, 511, 832. KW Labor Unions. United States. Union Status. Job Satisfaction. Wages. Working Conditions. Competition.

AB The dramatic decline in unionization over the last decade is investigated in the context of a supply/demand model of union status determination. Data from surveys conducted in 1977 and 1984 are used to decompose the decline into components due to a drop in the demand for union representation and a drop in the supply of union jobs relative to demand. It is found that there has been a substantial drop in demand that can be accounted for by an increase in the job satisfaction of nonunion workers and a decrease in nonunion workers' beliefs that unions improve wages and working conditions. It is also found that there has been a substantial drop in the supply of union jobs relative to demand that is attributed to an increase in employer resistance to unionization. Increased foreign and increased nonunion domestic competition (particularly in deregulated industries) are cited as the likely key underlying causes of these changes.

Farrell, Joseph

PD November 1986. TI Partnerships. AU Farrell, Joseph; Scotchmer, Susanne. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8616; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 28. PR \$3.50. JE 024, 053, 022, 025, 026. KW Partnerships. Equal-Sharing. Core. Club. Coalition.

AB A partnership is a coalition within which output must be shared equally. We show that when partnerships can form freely, a stable or "core" partition into partnerships always exists and is generically unique. When people differ in ability, the equal-sharing constraint inefficiently limits the heterogeneity of partnerships. We give conditions under which partnerships containing abler people will be larger, and show that if the population is replicated, partnerships may become more or less homogeneous, depending on an elasticity condition. We also examine when the equal-sharing inefficiency vanishes in the limit.

PD December 1986. TI Cheap Talk in Bargaining Games. AU Farrell, Joseph; Gibbons, Robert. AA Farrell: GTE Labs and University of California, Berkeley. Gibbons: Department of Economics, Massachusetts Institute of Technology. SR University of California at Berkeley Working Paper in Economics: 8620; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 23. PR \$3.50. JE 026. KW Cheap Talk. Communication. Bargaining. Mechanism Design. Game Theory. Negotiation.

AB This paper shows that cheap talk can matter in bargaining. We analyze a two-stage bargaining game in which cheap talk may be followed by serious negotiation. Cheap talk matters because it can affect whether negotiation ensues. The conventional wisdom, that all buyers would claim to have low reservation prices, assumes that participation is determined exogenously, and is incorrect in our model.

PD December 1986. TI Second-Sourcing as a Commitment: Monopoly Incentives to Attract Competition. AU Farrell, Joseph; Gallini, Nancy T. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8618; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 37. PR \$3.50. JE 611, 621. KW Second Sourcing. Lock-In. Commitment. Licensing. Dynamic Consistency. Monopoly. Set-Up Costs.

AB We show that a new product monopolist may benefit from delayed entry into its market when consumers of the product incur set-up costs. Set-up costs create a dynamic consistency problem: the monopolist cannot guarantee that it will set low future prices for the product once customers have incurred the costs of product adoption. We show that, if customers are aware of this problem, the monopolist's profits can be improved through ex-ante commitment to competition in the post-adoption market. The most profitable post-adoption market structure depends on the size of adoption costs and on future demand conditions. For sufficiently large set-up costs, an innovator of a product with static demand is better off

with perfect competition than as a monopolist in the post-adoption periods. For lower set-up costs, first-best profits are achieved under monopoly in all periods. If new demand is expected in the future, licensed competition will improve the monopolist's profits.

PD January 1987. TI Competition with Lock-In. AA GTE Laboratories, Inc. and University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8722; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 20. PR \$3.50. JE 022, 512, 611, 621. KW Lock-In. Loyalty. Switching Costs. Regulation. Contracts. Procurement.

AB We discuss the growing literature on, and some unresolved problems in, the economics of competition when buyers become locked-in to their suppliers.

PD May 1987. TI Coordination Through Committees and Markets. AU Farrell, Joseph; Saloner, Garth. AA Farrell: University of California, Berkeley. Saloner: Massachusetts Institute of Technology and Stanford University. SR University of California at Berkeley Working Paper in Economics: 8740; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley 94720. PG 37. PR \$3.50. JE 026, 621, 025. KW Compatibility. Standardisation. Negotiation. Battle of the Sexes. Grab the Dollar. War of Attrition. Cheap Talk. Game Theory. Market Mechanism. Committee System.

AB We discuss two common mechanisms for achieving coordination, with particular reference to the choice of compatibility standards. The first involves explicit communication and negotiation before irrevocable choices are made: it represents what standardization committees do. The second mechanism, by contrast, involves no explicit communication, and depends on early irrevocable choices: the hope is that one agent will choose first and the other(s) can then follow. This is a simple version of "market leadership." We analyze these two mechanisms in a simple model, and show that the committee is more likely to achieve coordination. Although it is slower, it outperforms the market mechanism, even when we allow for the value of speed. We also examine unilateral preemptive actions that subvert the committee system and show that, far from marring its performance, they actually improve it.

PD June 1987. TI Coordination Through Committees and Markets. AU Farrell, Joseph; Saloner, Garth. AA Farrell: University of California, Berkeley Saloner: Hoover Institution and Massachusetts Institute of Technology. SR Stanford Hoover Institute Working Paper in Economics: E-87-25; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 47. PR No Charge. JE 611, 612, 026, 022. KW Committees. Coordination. Adoption. Market Mechanism. Compatibility Standards. Negotiation. Market Leadership.

AB We discuss two common mechanisms for achieving coordination, with particular reference to the choice of compatibility standards. The first involves explicit communication and negotiation before irrevocable choices are made: it represents what standardisation committees do. The second mechanism, by contrast, involves no

explicit communication, and depends on early irrevocable choices: the hope is that one agent will choose first and the other(s) can then follow. This is a simple version of "market leadership." We analyze these two mechanisms in a simple model, and show that the committee is more likely to achieve coordination. Although it is slower, it outperforms the market mechanism, even when we allow for the value of speed. We also examine unilateral preemptive actions that subvert the committee system and show that, far from marring its performance, they actually improve it.

Feenstra, Robert C.

PD April 1987. TI Negotiated Trade Restrictions with Private Political Pressure. AU Feenstra, Robert C.; Lewis, Tracy R. AA University of California at Davis. SR University of California at Davis Economics Department Working Paper: 290; Department of Economics, University of California at Davis, Davis, CA 95616. PG 37. PR No Charge. JE 421, 422, 411, 022, 026. KW Political Pressure. Incentive Compatibility. Quota Rents. Tariffs. Trade Policy.

AB In this paper we consider a home government with political pressure to restrict trade, at the expense of foreigners. The foreign country is compensated with an income transfer, which can be thought of as a portion of the tariff revenues or quota rents. In this setting the two countries should negotiate over the level of tariff and transfer of rents, depending on the level of political pressure at home. However, if this pressure cannot be directly observed abroad, then the home country may have an incentive to claim arbitrarily high political need and seek corresponding high trade barriers. We resolve this problem by determining incentive compatible trade policies, in which the home government has no incentive to overstate (or understate) the political pressure for protection.

Fei, John C. H.

PD April 1987. TI Prosperity and Stability In Hong Kong: A Cultural Approach. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 532; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 35. PR \$2.00. JE 112, 111, 121, 045. KW Culture. Political Economy. Traditional Values. China. Hong Kong. Hierarchical Class Structure.

AB The framework of analysis begins with the construction of the "static morphological structure" of a political economic system emphasizing a hierarchized class structure. The dynamics of the "rational interclass mobility," that involves human activities in the economic as well as the political domains can then be explored in an integrated fashion. It will then be shown that the traditional cultural values that provided the basic motivating force for the operation of the integrated system in the traditional agrarian society (i.e. of traditional China) is still operative in the modern technological society -- using the case of Hong Kong as a concrete illustration.

PD April 1987. TI Economic Development and Traditional Chinese Cultural Values. AA Yale University. SR Yale Economic Growth Center

Discussion Paper: 531; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 24. PR \$2.00. JE 112, 111, 045, 121. KW Tradition. Cultural Values. China. LDCs. Taiwan. Hong Kong. Singapore. Korea. Open Orientation. Depoliticization. Economic Growth.

AB Among the more than 100 less developed countries in the post-war world, the economic region surrounding mainland China, including Taiwan, South Korea, Hong-Kong and Singapore, have been most successful in their transition growth process (1950-1985) from their prewar agrarian background toward what was referred to by Professor Kuznets as the epoch of modern economic growth. Why is it that these countries have been so successful as compared to other regions? The economists have identified two causal factors behind the miracle of the "Far Eastern Gang of Four" namely, i.e., the openness in orientation and the depoliticization of their economic system. As manifested in the evolution of their growth related policies in the course of the last 35 years, openness and liberalization encouraged "competition". This paper argued that the policy evolution has "roots" that reside deep in the traditional Chinese cultural values.

Frankel, Jeffrey A.

PD May 1987. TI International Capital Flows and Domestic Economic Policies. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8739; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley 94720. PG 86. PR \$3.50. JE 441, 431, 042, 311, 321, 322. KW Balance of Payments. International Capital Flows. Budget Deficit. Interest Rates.

AB This paper, written for the NBER Conference on the Changing Role of the United States in the World Economy, covers the capital account in the United States balance of payments. It first traces the history from 1946 to 1980, a period throughout which Americans were steadily building up a positive net foreign investment position. It subsequently describes the historic swing of the capital account in the 1980s toward massive borrowing from abroad. There are various factors, in addition to expected rates of return, that encourage or discourage international capital flows: transactions costs, government controls, taxes, default and other political risk and exchange risk. But the paper argues that the increase in real interest rates and other expected rates of return in the United States, relative to other countries, in the early 1980s was the major factor that began to attract large net capital inflows. It concludes that a large increase in the United States federal budget deficit, which was not offset by increased private saving, was the major factor behind the increase in real interest rates, and therefore behind the switch to borrowing from abroad.

PD May 1987. TI Are Exchange Rates Excessively Variable? AU Frankel, Jeffrey A.; Meese, Richard. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8738; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley 94720. PG 57. PR \$3.50. JE 431, 212, 131. KW Exchange Rates. Volatility. Bubbles. Fundamentals. Forward Rate. Speculative

Bubbles. Risk Premium. Credibility. Expectations.

AB "Unnecessary variation" is defined as variation not attributable to variation in fundamentals. In the absence of a good model of macroeconomic fundamentals, the question "are exchange rates excessively variable?" cannot be answered by comparing the variance of the actual exchange rate to the variance of a set of fundamentals. This paper notes the failure of regression equations to explain exchange rate movements even using contemporaneous macroeconomic variables. It notes as well the statistical rejections of the unbiasedness of the forward exchange rate as a predictor of the spot rate. It then argues that, given these results, there is not much to be learned from the variance-bounds tests and bubbles tests. The paper also discusses recent results on variation in the exchange risk premiums arising from variation in conditional variances, both as a source of the bias in the forward rate tests and as a source of variation in the spot rate. It finishes with a discussion of whether speculators' expectations are stabilizing or destabilizing, as measured by survey data. The paper concludes that it is possible that exchange rates have been excessively variable -- as, for example, when there are speculative bubbles -- but that if policy-makers try systematically to exploit their credibility in order to stabilize exchange rates, they may see their current credibility vanish.

PD May 1987. **TI** Obstacles to International Macroeconomic Policy Coordination. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 8737; **IBER**, 156 Barrows Hall, University of California at Berkeley, Berkeley 94720. **PG** 42. **PR** \$3.50. **JE** 431, 423, 311, 321. **KW** International Coordination. Macroeconomic Policy-Making. Model Uncertainty. Unilateral Policy. Fiscal Policy. Monetary Policy.

AB Coordination of macroeconomic policies among countries is not as straightforward in practice as it appears in theory. This paper discusses three obstacles to successful international coordination: (1) uncertainty as to the correct initial position of the economy, (2) uncertainty as to the correct objective, and (3) uncertainty as to the correct model linking policy actions to their effects in the economy. Previous results (NBER Working Paper No. 2059) showed that coordination under conditions of policy-maker disagreement about the correct model could very well reduce national welfare rather than raise it. This paper extends those results to allow for explicit policy-maker recognition of uncertainty regarding the correct model, as well as uncertainty regarding the model to which other policy-makers subscribe. It also shows that the potential gains from coordination, even when positive, are usually small relative to the gains from unilateral policy changes based on improved knowledge of the model.

PD May 1987. **TI** Are Exchange Rates Excessively Variable? **AU** Frankel, Jeffrey A.; Meese, Richard. **AA** University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 2249; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 431, 212, 131, 132. **KW** Exchange Rates. Fundamentals. Forward Rate. Speculative Bubbles. Expectations. Government Credibility.

AB "Unnecessary variation" is defined as variation not

attributable to variation in fundamentals. In the absence of a good model of macroeconomic fundamentals, the question "are exchange rates excessively variable?" cannot be answered by comparing the variance of the actual exchange rate to the variance of a set of fundamentals. This paper notes the failure of regression equations to explain exchange rate movements even using contemporaneous macroeconomic variables. It notes as well the statistical rejections of the unbiasedness of the forward exchange rate as a predictor of the spot rate. It then argues that, given these results, there is not much to be learned from the variance-bounds tests and bubbles tests. The paper also discusses recent results on variation in the exchange risk premiums arising from variation in conditional variances, both as a source of the bias in the forward rate tests and as a source of variation in the spot rate. It finishes with a discussion of whether speculators' expectations are stabilizing or destabilizing, as measured by survey data. The paper concludes that it is possible that exchange rates have been excessively variable -- as, for example, when there are speculative bubbles -- but that if policy-makers try systematically to exploit their credibility in order to stabilize exchange rates, they may see their current credibility vanish.

Friedman, Milton

PD June 1987. **TI** Money and the Stock Market. **AA** Hoover Institution, Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-87-27; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 44. **PR** No Charge. **JE** 311, 313. **KW** Money. Stock Price. Velocity.

AB Quarterly data for the period from 1981 to 1986 suggest that the real quantity of money (defined as M2) demanded relative to income is positively related to the deflated price of equities (Standard and Poor's composite) three quarters earlier, and negatively related to the contemporaneous real stock price. The positive relation appears to reflect a wealth effect, the negative, a substitution effect. The wealth effect appears stronger than the substitution effect. The volume of transactions has an appreciable effect on M1 velocity but not on M2 velocity. Annual data for a century suggest that the apparent dominance of the wealth effect is the exception, not the rule.

Fudenberg, D.

PD April 1987. **TI** Nash and Perfect Equilibria of Discounted Repeated Games. **AU** Fudenberg, D.; Maskin, E. **AA** Fudenberg: University of California, Berkeley. Maskin: Harvard University. **SR** University of California at Berkeley Working Paper in Economic: 8736; **IBER**, 156 Barrows Hall, University of California, Berkeley CA 94720. **PG** 31. **PR** \$3.50. **JE** 026, 022. **KW** Repeated Games. Folk Theorem. Game Theory.

AB The "perfect Folk Theorem" for discounted repeated games establishes that the sets of Nash and subgame-perfect equilibrium payoffs are equal in the limit as the discount factor d tends to one. We provide conditions under which the two sets coincide before the limit is reached. That is, we show how to compute d^* such that

the Nash and perfect equilibrium payoffs of the d -discounted game are identical for all $d > d^*$.

Gallini, Nancy T.

TI Second-Sourcing as a Commitment: Monopoly Incentives to Attract Competition. AU Farrell, Joseph; Gallini, Nancy T.

Gamble, A. B.

PD January 1987. TI A Network Penalty Method. AU Gamble, A. B.; Conn, A. R.; Pulleyblank, W. R. AA University of Waterloo, Ontario, Canada. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86445-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 28. PR No Charge. JE 213. KW Network Flow Problem. Nonlinear Penalty Function. Network Simplex Method. Combinatorial Algorithm. Network Penalty Method.

AB We consider the minimum cost network flow problem and describe how the nonlinear penalty function methods of Conn and Bartels can be specialized to a combinatorial algorithm for this problem, the network penalty method. Computational experience indicates that this algorithm provides a significant improvement over the network simplex method. The algorithm can be proven finite using a modification of Cunningham's strongly feasible basis pivoting rule.

Ganderton, Philip T.

PD January 1986. TI Constructed Variables in Instrumental Variable and Two Stage Least Squares Estimation. AU Ganderton, Philip T.; Vella, Francis G. M. AA University of California, Santa Barbara. SR University of California at Santa Barbara Department of Economics Working Paper: 263; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. PG 10. PR No Charge. JE 211. KW Constructed Variables. Instrumental Variables. Two Stage Least Squares. Predictions.

AB This note provides a simple proof of the use of the constructed variable technique proposed by Salkever (1976) to calculate predictions and prediction errors for instrumental variable and two stage least square estimation models.

Gazioglu, S.

TI A Two-Country Model with Asymmetric Phillips Curves and Intervention in the Foreign Exchange Market. AU Artis, M. J.; Gazioglu, S.

Geroski, P.

TI The Persistence of Profits in the U.K. AU Cubbin, J.; Geroski, P.

PD March 1987. TI In Pursuit of Monopoly: Recent Quantitative Work in Industrial Economics. AA University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8708; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. PG 32. PR No Charge. JE 611. KW Market

Power. Monopoly. Collusion.

AB In this essay, I propose to focus on a problem which is as old as market institutions themselves, and which has been the focus of much empirical work by Industrial Economists. The problem is that of detecting the exploitation of market power by firms to raise prices above competitive levels. It is made difficult to solve by the fact that such activities are, in general, illegal, and so are not easy to observe directly. Although many will have sympathy with Adam Smith's remark that "people of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices", it does seem to be a trifle too presumptuous to be taken seriously as a rule for detecting collusion in practice. The last 211 years have seen a great refinement in the techniques applied to this problem, and I propose to concentrate on the most recent of these.

Gertler, Paul

TI Regulation and the Provision of Quality to Heterogeneous Consumers: The Case of Prospective Pricing of Medical Services. AU Allen, Robin; Gertler, Paul.

Gibbons, Michael R.

PD May 1987. TI Subperiod Aggregation and the Power of Multivariate Tests of Portfolio Efficiency. AU Gibbons, Michael R.; Shanken, Jay. AA Gibbons: Stanford University. Shanken: University of Rochester. SR Stanford Graduate School of Business Research Paper: 918; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. PG 12. PR No Charge. JE 313, 311, 212. KW Portfolio Efficiency. Hypothesis Testing. Aggregation.

AB When testing portfolio efficiency, empiricists usually perform tests using subperiods and aggregate the results in some manner. While the power of individual subperiod tests has been studied previously, little is known about the power of the aggregate test. Power is evaluated here through simulations using two different aggregation techniques. Aggregate power is substantially higher than that for a single subperiod. For example, in one scenario taken from MacKinlay (1987), aggregate power is .77 over a sixty year period but only .17 for each five year subperiod. In addition, the level of power depends on the method of aggregation.

Gibbons, Robert

TI Cheap Talk in Bargaining Games. AU Farrell, Joseph; Gibbons, Robert.

Gilbert, Christopher L.

PD June 1987. TI The Impact of Exchange Rates and Developing Country Debt on Commodity Prices. AA Institute of Economics and Statistics, Oxford. SR Oxford Applied Economics Discussion Paper: 30; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 56. PR No Charge. JE 431, 440, 433, 421. KW Commodity Prices. Exchange Rates. LDC Indebtedness. International Debt.

AB Primary commodity prices have been very low

during the nineteen eighties. This is widely regarded as due to the high value of the dollar during the first half of the decade. Simple comparative static results show that the elasticity of commodity prices with respect to a dollar appreciation should be within the unit interval, but it is possible that supply shifts resulting from LDC indebtedness may take the elasticity outside that interval. Using a model of the World Bank commodity indices, we find that the elasticity is broadly within '0,1 when LDC producers are compensated to keep debt service constant, but that for agricultural commodities, the uncompensated elasticity exceeds unity.

Girardin, Michael

TI Business Cycles in Switzerland (1967-1984).
AU Danthine, Jean Pierre; Girardin, Michael.

Glyn, Andrew J.

PD March 1987. TI Colliery Results and Closures After the 1984-85 Coal Dispute. AA Corpus Christi College, Oxford. SR Oxford Applied Economics Discussion Paper: 24; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 27. PR No Charge. JE 632, 820, 830, 122, 611. KW Coal Industry. Britain. Miners Strike. Productivity.

AB The operating results of the collieries, comprising the United Kingdom coal industry are analysed for the year after the 1984-85 miners' strike. Productivity increased rapidly, mainly due to higher productivity in the continuing coal mines. Closures played a relatively small role, and were only partially concentrated on the highest cost pits. This high cost "tail" did not emerge immediately before the strike, but rather became much more visible due to deteriorating operating results for the industry as a whole. Productivity increases since the strike have reflected cuts in manpower as well as increased output, have varied widely by geographical area, and have been greatest in the pits threatened by closure as a result of high costs.

Glytsos, Nicholas P.

TI Theoretical and Empirical Determinants of International Labour Mobility A Greek-German Perspective. AU Katseli, Louka T.; Glytsos, Nicholas P.

Goldsmith, Martin

TI Utilizing the Data from the Army's National Training Center: Analytical Plan. AU Levine, Robert A.; Hodges, James S.; Goldsmith, Martin.

Gordon, Robert J.

PD April 1987. TI The Postwar Evolution of Computer Prices. AA Northwestern University. SR National Bureau of Economic Research Working Paper: 2227; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 621, 227, 611, 631. KW Computers. PCs. Hedonic Pricing. Mainframes. Price Indexes. Deflator. Chain-Linked Laspeyres Index.

AB This study constructs new hedonic price indexes for electronic computers covering the period 1951-84. Regressions are estimated for four data sets, two used in

previous studies by G. Chow and E. Dulberger, and two new data sets used for the first time in this study. Coverage is limited to mainframes until the late 1970s, but includes both "super-mini" computers and personal computers in the 1980s. The end result is a price index that exhibits a 1951 index number, on a base 1984 = 100, of 147,692, implying an annual rate of price change over the 33 years of -19.8 percent. Price changes for personal computer (PC) processors during the 1982-86 period appear to have been similar to those for mainframe computers during the 1977-84 period, in the range of -20 to -25 percent per year. Evidence for PC peripheral equipment is limited to 1984-86 and indicates a faster rate of price decline than for processors, particularly if the increasing availability of "clones" is taken into account. The paper places considerable emphasis on problems of weighting price indexes for computers together with price indexes for other types of "Office, Computing, and Accounting Machinery" (OCA) and other types of producers' durable equipment (PDE). The methodology used to construct the implicit price deflators in the National Income and Product Accounts, with a fixed 1982 base year, leads to a significant downward bias in the implicit OCA and PDE deflators after 1982, and an upward bias prior to 1982. A particularly disturbing aspect of the present national accounts is a spurious rise in the implicit OCA deflator of 157 percent between 1957 and 1971, despite the fact that its computer component exhibits a price decline and its non-computer component increases by only 8 percent. The paper recommends adoption of a chain-linked Laspeyres index number for any price index aggregate that includes computers. A properly weighted PDE deflator, using our computer price index, declines relative to the official implicit PDE deflator by 0.74 percent per year during 1957-72 and 0.87 percent per year during 1972-84.

Grossman, Herschel

PD May 1987. TI A Generic Model of Monetary Policy, Inflation and Reputation. AA Brown University. SR National Bureau of Economic Research Working Paper: 2239; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 311, 134, 023. KW Inflation. Expectations. Money Supply. Reputational Equilibrium. Memory Process.

AB This paper analyzes a reputational equilibrium for inflation under the generic assumption that monetary policy reflects proximate preferences for low expected inflation and positive unexpected inflation. The paper stresses the qualitative implication that in a reputational equilibrium the policymaker behaves as if it is concerned about controlling inflation, even though it does not have a direct preference for a low actual inflation rate. The analysis also shows how the sovereign's prospects for survival and the private agents' memory process play critical roles in determining whether the reputational equilibrium approximates a hypothetical equilibrium with binding commitments.

PD May 1987. TI Nominally Denominated Sovereign Debt, Risk Shifting, and Reputation. AU Grossman, Herschel; Van, Huyck John. AA Grossman: Brown University. Van Huyck: Texas A&M University.

SR National Bureau of Economic Research Working Paper: 2259; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 023, 311, 321, 026. KW National Debt. Inflation. Uncertainty. Reputation.

AB This paper analyzes a reputational equilibrium in a model in which nominally denominated sovereign debt serves to shift risk associated with the unpredictability of tax revenues from the sovereign to its lenders. The analysis answers the following set of related questions: Why would a sovereign refrain from inflating when faced with servicing a large quantity of nominal debt? If a sovereign does not plan to use inflation to repudiate its nominal debts, why would it want to issue nominal debt in the first place? What are the distinguishing features of those sovereigns who are willing and able to issue nominal debts?

Grossman, Sanford J.

PD May 4 1987. TI One Share/One Vote and the Market for Corporate Control. AU Grossman, Sanford J.; Hart, Oliver D. AA Grossman: Princeton University. Hart: Massachusetts Institute of Technology. SR Princeton Financial Research Center Memorandum: 76; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. PG 65. PR \$3.00. JE 520, 511, 514. KW Corporate Control. Security Structure. Voting Rights. Shareholder Benefits. Corporate Securities.

AB A corporation's securities provide the holder with particular claims on the firm's income stream and particular voting rights. These securities can be designed in various ways: one share of a particular class may have a claim to votes which is disproportionately larger or smaller than its claim to income. In this paper we analyse some of the forces which make it desirable to set up the corporation so that all securities have the same proportion of votes as their claim to income ("one share/one vote"). We show that security structure influences both the conditions under which a control change takes place and the terms on which it occurs. First, the allocation of voting rights to securities determines which securities a party must acquire in order to win control. Secondly, the assignment of income claims to the same securities determines the cost of acquiring these voting rights. We will show that it is in shareholders' interest to set the cost of acquiring control to be as large as possible, consistent with a control change occurring whenever this increases shareholder wealth. Under certain assumptions, one share/one vote best achieves this goal. We distinguish between two classes of benefits from control: private benefits and security benefits. The private benefits of control refer to benefits the current management or the acquirer obtain for themselves, but which the target security holders do not obtain. The security benefits refer to the total market value of the corporation's securities. The assignment of income claims to voting rights determines the extent to which an acquirer must face competition from parties who value the firm for its security benefits rather than its private benefits.

Hajivassiliou, Vassilis Argyrou

PD December 1985. TI Analysing the Determinants of the External Debt Repayments Problems of LDC'S:

Econometric Modelling Using a Panel Set of Data. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 495; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 52. PR \$2.00. JE 431, 433, 441, 443, 121, 212. KW External Debt. LDCs. Panel Data. Debt Repayment. Developing Nations. Oil Shock. Dynamic Models.

AB This paper offers an econometric analysis of the problems of repayment of external debt of developing countries along credit rationing lines, using a panel set of data of 79 nations observed through 1970 to 1982. The main model presented employs hitherto unexploited sources of information about the incidence and extent of credit constraints. The estimation techniques pay particular attention to the panel nature of the data, by allowing for random effects to model unobserved country heterogeneity. The problem of initial conditions in non-linear dynamic models in panels is examined. Several hypotheses in the international finance literature are formulated and tested using the main model of this paper, including the role the "petrodollars" played following the 1973 oil-shock, and the "liquidity versus solvency" question. A major empirical finding is that time dependence seems to arise both through persistent country specific unobservable characteristics, and through information theoretic conditions that make important the history of debt repayments problems of a country.

Hall, Robert E.

PD May 1987. TI Consumption. AA Stanford University. SR National Bureau of Economic Research Working Paper: 2265; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 023, 921. KW Rational Expectations. Random Walk. Liquidity Constraints. Intertemporal Substitution.

AB Macroeconomic research on consumption has been influenced profoundly by rational expectations. First, rational expectations together with the hypothesis of constant expected real interest rates implies that consumption should evolve as a random walk. Much of the research of the past decade has been devoted to testing the random walk hypothesis and to explaining its failure. Three branches of the literature have developed. The first relies on the durability of consumption to explain deviations from the random walk property. The second invokes liquidity constraints which block consumers from the credit market transactions needed to make consumption follow a random walk when income fluctuates up and down. The third branch dispenses with the assumption that expected real interest rates are constant. It attempts to explain deviations from the random walk in terms of intertemporal substitution.

PD May 1987. TI Investment Under Uncertainty: Theory and Tests With Industry Data. AA Stanford University. SR National Bureau of Economic Research Working Paper: 2264; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 522, 212, 022. KW Optimal Investment. Rental Price of Capital. Firm Investment.

AB Under the assumption of constant returns to scale, there is a very simple, easily testable condition for optimal

investment under uncertainty. Application of the test requires no parametric assumptions about technology and no assumptions about the competitiveness of the output market. The condition is that the expected marginal revenue product of labor equal the expected rental price of capital. The condition implies a certain invariance property for a modified version of Solow's productivity residual. Tests of the invariance property for United States industry data give very strong rejection in quite a few industries. The interpretation of rejection is either that the technology has increasing returns (possibly because of fixed costs) or that firms systematically over-invest.

Haltiwanger, John

PD January 1987. TI Limited Rationality and Synergism: The Implications for Macroeconomics. AU Haltiwanger, John C.; Waldman, Michael. AA Waldman: UCLA. Haltiwanger: Department of Political Economy, Johns Hopkins University. SR Johns Hopkins Department of Political Economy Working Paper: 183; Department of Political Economy, Johns Hopkins University, Baltimore, MD 21218. PG 39. PR No Charge. JE 023, 026. KW Synergism. Rational Expectations. Asymmetric Information.

AB In this paper we consider the implications of heterogeneity in information processing abilities for macroeconomic models that exhibit what we refer to as synergism. Synergism is the same concept that has received much attention in the recent macro literature under the heading of either Keynesian coordination problems, positive trading externalities, or strategic complementarities. The paper is concerned with the following question. When agents vary in terms of their ability to form expectations, is it the agents who form expectations in a "sophisticated" manner who have a disproportionately large effect on macroeconomic equilibrium, or is it the "naive" who are disproportionately important? We find that if macroeconomic interaction exhibits synergism, then it is the naive agents who have a disproportionate impact.

PD March 1987. TI Responders Versus Nonresponders: A New Perspective on Heterogeneity. AU Haltiwanger, John; Waldman, Michael. AA Haltiwanger: Department of Political Economy, Johns Hopkins University. Waldman: University of California Los Angeles. SR Johns Hopkins Department of Political Economy Working Paper: 186; Department of Political Economy, Johns Hopkins University, Baltimore, MD 21218. PG 47. PR No Charge. JE 022, 821, 824, 825, 026. KW Heterogeneity. Labor Market. Shirking. Wages.

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 it can be used to understand a variety of economic environments. Applications considered include a labor market setting where the firm offers a non-market clearing wage in order to deter shirking, and recent work on the

evolution of market outcomes given network externalities.

PD April 1987. TI Rational Expectations in the Aggregate. AU Haltiwanger, John; Waldman, Michael. AA Haltiwanger: Department of Political Economy, Johns Hopkins University. Waldman: University of California Los Angeles. SR Johns Hopkins Department of Political Economy Working Paper: 187; Department of Political Economy, Johns Hopkins University, Baltimore, MD 21218. PG 24. PR No Charge. JE 023, 026. KW Rational Expectations. Aggregation. Synergism. Congestion.

AB In practice rational expectations has typically meant that the expectation of each agent taken separately is by itself consistent with the predictions of the relevant economic theory, i.e., what we refer to as standard rational expectations. This differs, however, from the argument frequently put forth by proponents of the rational expectations assumption to justify its use. That argument is that on an aggregate level it would be surprising if expectations were inconsistent with the predictions of the relevant theory. The employment of the stronger assumption of standard rational expectations is then justified by the argument that, if expectations were rational in the aggregate, then expectational deviations across agents would tend to cancel out. In this paper we have conducted a formal investigation of the relationship between standard and what we refer to as aggregate rational expectations. Our analysis yielded the following findings. First, only under very special conditions do standard and aggregate rational expectations yield equivalent results. The remaining findings concern what factors determine the size of the difference. We found that the size of the difference will be larger when: (i) the divergence in expectations under aggregate rational expectations is increased; (ii) in a congestion world the severity of the congestion is decreased; (iii) in a synergism world the severity of the synergism is increased; and (iv) the activities exhibit synergism rather than congestion. Finally, a number of applications were analyzed. These applications served to demonstrate both the general applicability of the model, as well as a number of real world implications of our analysis.

Ham, John

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

Hamlin, Alan P.

PD 1987. TI Rights, Indirect Utilitarianism and Contractarianism. AA Department of Economics, University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8713; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. PG 35. PR No Charge. JE 024, 025, 011. KW Rights. Utilitarianism.

AB The debate on the tension between utilitarianism and rights has been conducted largely in terms of direct utilitarianism, particularly in the more formal economic literature. More recently there has been considerable interest in the possibility of an indirectly utilitarian defense of rights which derives support for rights at the practical level of decision making from utilitarian

evaluation at a higher, critical level. After outlining a taxonomy of the status of rights in both social evaluation and decision making, and discussing the nature of the tension between rights and the combination of welfarism and consequentialism, this paper argues that indirect utilitarianism can not provide a grounding for rights of any substantial status. However, the arguments presented do suggest the possibility of a more contractarian defense of substantial rights.

Hansen, Lars Peter

PD May 1986. TI A Central Limit Result 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: 86-6; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. PG 22. PR \$2.00; Send requests to Librarian, Economics Research Center. JE 211. KW Central Limit Theorems. Time Series Processes. Continuity Restrictions. Fourier Transforms. Generalized Method of Moments Estimators. Martingale Difference Sequences. Moving Average.

AB Central limit results are presented for products of linear time series processes driven by vector martingale difference sequences. The dependence of the processes is restricted via continuity restrictions on the Fourier transforms of the moving-average coefficients. The results in this paper are useful in showing that generalized method of moments estimators of linear time series models are asymptotically normal.

Hansen, Ronald W.

PD April 1986. TI Stimulating Product Innovation and Reforming the Health Care Reimbursement System. AA College of Pharmacy, Ohio State University. SR University of Rochester Center for Research in Government Policy and Business Working Paper: GPB86-01; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 29. PR NC single copies 50 cents each paper beyond 5 in each order. JE 621, 913. KW Medical Technology. Health Care Reimbursement. Health Care Costs.

AB Although the health status of Americans continues to improve, the concern with the rapidly rising cost of health care has generated several proposals for reforming the health care reimbursement system, some of which already have been implemented. This paper explores the expected impact of these reforms on the development of new medical technologies. The paper begins by examining the process of innovation in health care products and surveys measures of the effects of innovations on health care and its costs. The manner in which new technologies are treated in the health care reimbursement plans is described and the effects of health care payment systems on the adoption and use of technologies is explored. The final section relates changes in the health care reimbursement system to the development of new technologies.

PD July 1986. TI Drug Regulation: The Past and Future Twenty-Five Years. AA College of Pharmacy, Ohio State University. SR University of Rochester Center for Research in Government Policy and Business

Working Paper: PPS86-04; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 14. PR NC single copies 50 cents each paper beyond 5 in each order. JE 613, 913, 621. KW Food and Drug Administration. Pharmaceutical Regulation. FDA. Drugs. Pharmaceuticals. Medicines. Health.

AB Nineteen-eighty-seven is the 25th anniversary of the passage of legislation which significantly altered the process of regulating pharmaceutical innovation in the United States. To obtain approval to market a drug, firms must not only demonstrate the safety of the product but also prove that it is efficacious for all claimed uses. Food and Drug Administration approval must also be obtained prior to any clinical trials. The time and expenditures required to develop a new drug have risen dramatically during the past 25 years and the number of new drug introductions has declined. Despite the deregulation of other major industries, there is little prospect of significant deregulation of pharmaceutical innovation. Those reforms which have been proposed have addressed financial concerns and administrative procedures, but do not effect the basic decision process. No significant modification in the approval process is likely in the absence of a major change in the public's perception and attitude toward risk taking.

PD July 1986. TI Effects of Cost Containment on Pharmaceutical Innovation. AA College of Pharmacy, Ohio State University. SR University of Rochester Center for Research in Government Policy and Business Working Paper: PPS86-05; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 9. PR NC single copies 50 cents each paper beyond 5 in each order. JE 913, 613, 621, 631. KW Pharmaceutical Innovation. Health Care Costs. Health Policy. Drugs. Medicines. Costs of Disease.

AB The rising cost of health care has placed cost containment high on the health policy agenda, but most discussions of cost containment schemes failed to differentiate between the direct costs of disease treatment and the indirect costs of the disease itself such as the change in the person who is ill, his family, his employment, mortality, morbidity, and quality of life. Although direct costs have increased, indirect costs have declined. Cost containment plans focus on the control of direct cost, which will shift the emphasis from increasing medical effectiveness to decreasing quantifiable costs. Yet the drive to attain even that latter goal may be mistaken in that while major medical costs may go down, the total cost of care may still be on the rise. Pharmaceutical development will be negatively effected by the efforts at cost containment when such schemes emphasize generic and therapeutic substitution. If there is a positive side to such programs, it lies in the generally favorable cost effectiveness performance of pharmaceuticals.

Harding, R.

TI Contracting-Out: A Literature Review. AU Hirsch, W. Z.; Harding, R.

Hardle, Wolfgang

PD February 1987. TI Investigations Smooth

Multiple Regression by the Method of Average Derivatives. AU Hardle, Wolfgang; Stoker, Thomas M. AA Hardle: University of Bonn. Stoker: MIT. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-107; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 52. PR No Charge. JE 211. KW Multiple Regression. Average Derivative. Kernel Regression. Projection Pursuit Regression.

AB Let (x_1, \dots, x_k, y) be a random variable where y denotes a response on the vector x of predictor variables. An important problem is the statistical characterization of the mean response $m(x) = E(y/x)$. In this paper we propose a method of characterizing multiple regression through the estimation of the average derivative $d = E(m')$. The primary motivation for studying d comes from models where the mean response depends on x only through a weighted sum $x'b$, or $m(x) = g'(x'b)$, where b is a vector of unknown coefficients. In this case d is proportional to b , and $m(x)$ is fully characterized by d and the univariate function $g(x'd) = E(y/x'd)$, as $m(x) = g(x'd)$. This modeling form is familiar to applied statistics, as exhibited by standard models of transformed data, and models used to describe responses that display limited variation. In this paper we present an estimator d^* of the average derivative d , an estimator $g^*(\cdot)$ of the univariate function $g(\cdot)$, and we propose the characterization $m^*(x) = g^*(x'd^*)$ of $m(x)$. This proposal characterizes multivariate regression relationships using a vector of "typical effects" d^* , with nonlinearity in the relationship summarized by $g^*(\cdot)$. The estimator d^* is based on an average of kernel densities, and is shown to be square root(N) consistent and asymptotically normal. A consistent estimator of the asymptotic variance-covariance matrix of d^* is proposed, which facilitates inference on the value of d . The estimator $g^*(\cdot)$ of $g(\cdot)$ is the standard Nadaraya-Watson kernel regression estimator of y on $x'd^*$, and is shown to display the same convergence properties as the kernel regression of y on $x'd$. In sum, the estimator d^* converges to d at the rate typically available in parametric estimation problems, and the estimator $g^*(\cdot)$, and hence $m^*(x)$, converges at the optimal one dimensional nonparametric rate. These estimators are studied using Monte Carlo analysis, and are seen to perform well in relatively small data samples, even for a 10 dimensional problem. The relationship of the approach to alternative methods of multivariate regression characterization, namely projection pursuit regression of Friedman and Stuetzle(1981) and the ACE algorithm of Breiman and Friedman(1985), is discussed.

Hardouvelis, Gikas A.

PD May 1987. TI Optimal Wage Indexation and Monetary Policy in an Economy with Imported Raw Materials. AA Economics Department, Barnard College, Columbia University. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-12; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 27. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 824, 311, 431, 134, 411. KW Foreign Exchange Intervention. Monetary Accommodation. Supply

Shocks. Wage Indexation. Open Economy. Exchange Rates. Inflation.

AB An economy's openness from the input side has important effects on the optimal design of its macroeconomic policies. Given the exchange rate regime, the larger the share of imported raw materials in domestic production, the smaller the optimal degree of wage indexation to unanticipated inflation. Alternatively, given the wage indexation parameter, the larger the share of imported raw materials in domestic production, the smaller the optimal degree of foreign exchange intervention by the monetary authority (the more flexible the exchange rate).

PD May 1987. TI The Predictive Power of the Term Structure During Recent Monetary Regimes. AA Department of Economics, Barnard College, Columbia University. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-11; 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 313, 311, 132. KW Forward Rate. Monetary Regime. Predictability. Term Structure. Interest Rates. VAR. Monetary Policy.

AB I use weekly Treasury bill rates with maturities of one to twenty six weeks to examine the information in forward rates during the 1970's and 1980's. Forward rates contain better information about future spot rates than what is incorporated in a simple vector autoregressive model. Forward rates also have predictive power that varies over time. It increased after October 1979, and increased further after October 1982. The post-October 1982 evidence refutes the hypothesis that Fed targeting of interest rates weakens the predictive ability of the term structure.

Harrison, Scott

TI Prospective Payment for Medicare Posthospital Services: Some Empirical Considerations. AU Neu, C. R.; Harrison, Scott.

Hart, Oliver D.

TI One Share/One Vote and the Market for Corporate Control. AU Grossman, Sanford J.; Hart, Oliver D.

Hartman, Janice

TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John.

TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John.

Harvey, Andrew C.

PD July 1985. TI Multivariate Time Series Models, Control Groups and Intervention Analysis. AA Department of Statistics, London School of

Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.53; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 42 Pages. PR No Charge. JE 211, 212. KW Time Series Model. Unobserved Components. Intervention Model. Seat Belt Legislation. U.K.

AB A multivariate structural time series model made up of unobserved components such as trends and seasonals is formulated. A homogeneous system, in which any linear combination of the observations follows the same time series process, is shown to correspond to a multivariate structural model in which the covariance matrices of the disturbances are proportional. An intervention variable is introduced into a univariate structural model and then into a multivariate model. The multivariate model allows observations on a control group to be taken into account in assessing the effect of the intervention. Single equation estimation of an intervention model with a control group is then analysed. Finally, the methods are applied to the problem of analysing the effect of the UK seat belt legislation of 1983.

PD 1986. TI Assessing and Modelling the Cyclical Behaviour of Rainfall in North-East Brazil. AU Harvey, Andrew C.; Sousa, R. C. AA Harvey: Department of Statistics, LSE. Sousa: PUC/RJ BRAZIL. SR London School of Economics Econometrics Programme Discussion Paper: H.1; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 16. PR No Charge. JE 212, 132, 712. KW Cycles. Forecasting. Kalman Filter. Spectral Analysis. Structural Model. Time Series. Weather Forecasting. State Space.

AB There has always been a good deal of interest in the possibility of cycles being present in weather data. This article presents a class of models which allows cyclical components to be modelled explicitly. The cyclical components are stochastic rather than deterministic and the model may be used for forecasting. The statistical handling of the model is based on the state space form and the application of the Kalman filter. The model was fitted to data on rainfall in Fortaleza, which is a town in the north-east of Brazil; an area which often suffers from drought. The model gives not only an excellent description of the properties of the series, but also makes it clear that the gains achieved in forecasting by taking account of the cycle are small.

PD January 1986. TI Estimation, Smoothing, Interpolation and Distribution for Structural Time Series Models in Discrete and Continuous Time. AU Harvey, A. C.; Stock, J. H. AA Harvey: Department of Statistics, LSE. Stock: Harvard University. SR London School of Economics Econometrics Programme Discussion Paper: A.62; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 34 Pages. PR No Charge. JE 211. KW Kalman Filter. Missing Observations. State Space. Temporal Aggregation. Trend. Unobserved Components. Maximum Likelihood.

AB A time series model may be formulated for a timing interval which is shorter than the interval between observations. The estimation of the parameters in such a

model by maximum likelihood is considered and methods are presented for estimating what the observations would have been at intermediate points. This latter problem is known as interpolation for a stock variable and distribution for a flow. The emphasis is on the class of structural time series models although the methods are also applicable to other univariate linear time series models, such as ARIMA models.

PD June 1986. TI Estimation of Multivariate Continuous Time Autoregressive Models with Common Stochastic Trends. AU Harvey, Andrew C.; Stock, James H. AA Harvey: Department of Statistics, London School of Economics. Stock: Kennedy School of Government, Harvard University. SR London School of Economics Econometrics Programme Discussion Paper: H.3; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 16. PR No Charge. JE 211. KW Continuous Time Estimation. Cointegration. Kalman Filter. Common Trends. Var. Vector Autoregression.

AB A multivariate continuous time model is presented in which a n -dimensional process is represented as the sum of a k -dimensional stochastic trend plus a n -dimensional stationary term, assumed to obey a higher order autoregressive stochastic differential equation system. When $k < n$, the process will be cointegrated, so that the variables can be represented as linear combinations of a reduced number of common trends. An algorithm to estimate the parameters of the model is presented. This algorithm, based on the Kalman-Bucy filter, is generalized to the case in which the variables are observed at two different observation intervals, say monthly and quarterly, and in which there might be missing observations as well.

PD June 1986. TI Estimating Integrated Higher Order Continuous Time Autoregressions. AU Harvey, Andrew C.; Stock, James H. AA Harvey: Department of Statistics, London School of Economics. Stock: Kennedy School of Government, Harvard University. SR London School of Economics Econometrics Programme Discussion Paper: H.2; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 23. PR No Charge. JE 211. KW Continuous Time Estimation. Kalman Filter. Integrated Processes. Stock/Flow System.

AB We present an algorithm for estimating the parameters of a continuous time autoregressive process with multiple roots that equal zero. Examples of processes to which this algorithm applies are a univariate integrated process observed as an integral over a unit interval in time (i.e. as a flow), and a multivariate process composed of singly and doubly integrated stock and flow variables. The algorithm, based on the Kalman-Bucy filter, provides maximum likelihood estimates and is readily adapted for the case of missing observations. We also show how to extend the algorithm to mixed stock/flow systems with arbitrary order of integration.

Hashimoto, Masanori

TI The Structure and Short-Run Adaptability of Labor Markets in Japan and the United States. AU Raisian, John; Hashimoto, Masanori.

Hay, Joel W.

PD April 1987. TI The Economic Costs of Alzheimer's Disease. AU Hay, Joel W.; Ernst, Richard L. AA Hay: Senior Research Fellow, The Hoover Institution. Ernst: Los Angeles. SR Stanford Hoover Institute Working Paper in Economics: E-87-18; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 84. PR No Charge. JE 913, 918. KW Senile Dementia. Cost Benefit Analysis. Cost-Of-Illness. Health. Old Age. Medical Care. Social Costs. Disease.

AB This paper estimates the economic costs of Alzheimer's Disease to individuals and to society, based on review of published Alzheimer's Disease-related research. The analysis is derived from epidemiological prevalence/incidence projections and cost information for the United States population in 1983. Estimated costs include both direct medical care and social support costs, as well as indirect costs, such as support services provided by family or volunteers, and the value of lost economic productivity in Alzheimer's Disease patients. Midrange estimates of net annual expected costs for an Alzheimer's Disease patient, excluding the value of lost productivity, are \$18,517 in the first year and \$17,643 in subsequent years, with direct medical and social services comprising about half of these costs. Under base case assumptions, the total cost of disease per patient in 1983, was \$48,544 to \$493,277, depending upon patient's age at disease onset. The estimated present value of total net costs to society for all persons first diagnosed with Alzheimer's Disease in 1983 was \$27.9-31.2 billion.

Hayes, Dermot

PD October 1985. TI Hog Cycles and Countercyclical Production Response. AU Hayes, Dermot; Schmits, Andrew. 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: 382; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 31. PR \$6.20. JE 131, 712, 711, 132. KW Hog Cycles. Countercyclical Production. Forecasting. Futures Markets. Agricultural Prices. Market Efficiency.

AB The purpose of this paper is to reconcile two fields of thought. We argue that predictable movements in hog prices can and have occurred in the presence of rational producers but that, because of lower information costs and larger herd size which increased the profitability of information collection, cycles eventually were eliminated as some producers responded in a countercyclical manner. While our study focuses only on the United States hog industry, the methodology presented can be applied to any industry where predictable cycles are said to exist. The first part of this paper shows that historically hog cycles did exist. Secondly, we model the behavior of a rational agent in the presence of predictable price movements. We then model the influence of many such producers on the profitability of the strategy in question. The two theoretical models are then combined and tested empirically. The results are consistent with the hypothesis that countercyclical producers eliminated the cycle.

PD January 1986. TI Trade and Welfare Effects of

Agricultural Policies in the European Community. AU Hayes, Dermot; Schmits, Andrew. 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: 386; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 42. PR \$8.40. JE 713, 411, 122, 420. KW European Community. Agricultural Policy. Welfare Economics. International Trade.

AB The Common Agricultural Policy (CAP) of the European Communities (EC) has been the subject of controversy both internally and among major agricultural exporting countries. The purpose of this paper is to evaluate the performance of the CAP and then use welfare theory to model the global effects and long-run implications of current Community policies. We use the results of this analysis to design a policy which achieves many of the Commission's targets, conforms to their rules of the game, and increases the welfare of all but currently importing countries. A specific set of proposals for implementing this policy is then outlined. This is followed by a welfare analysis of the proposed policy. This research has particular relevance given the recent fall in the value of the United States dollar, the agricultural productivity increases in developing countries, and the severe farm crisis in North America which is, in part, due to the fall in the value of farm exports. The proposed changes would avoid the long-run instability inherent in current policies and achieve a neutrality between Community policies and world market prices.

Heckman, James J.

TI A Dynamic Model of Aggregate Output Supply, Factor Demand and Entry and Exit for a Competitive Industry with Heterogeneous Plants. AU Chetty, V. K.; Heckman, James J.

PD March 1986. TI Alternative Methods for Solving the Problem of Selection Bias in Evaluating the Impact of Treatments on Outcomes. AU Heckman, James J.; Robb, Richard. AA Department of Economics, University of Chicago and Program in Quantitative Economic Analysis/NORC. SR Economics Research Center/NORC Discussion Paper: 86-9; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. PG 77. PR \$2.00; Send requests to Librarian, Economics Research Center. JE 211. KW Selection Bias. Cross Section Data. Longitudinal Data. Sampling Error. Measurement Error. Behavioral Theory.

AB This paper presents alternative assumptions that can be invoked to solve the problem of selection bias in evaluating the impacts of "treatments" on "outcomes". The relative benefits of longitudinal data, repeated cross section data and cross section data for solving the problems created by selection bias are discussed. Robustness of alternative estimators to choice based sampling and measurement error in training status is explored. The role of behavioral theory is in justifying alternative assumptions. Conventional "fixed effect" estimators are shown to be poorly justified by behavioral theory and statistically anomalous.

Helkie, William L.

TI A Reassessment of Measures of the Dollar's Effective Exchange Value. AU Pauls, B. Dianne; Helkie, William L.

Helliwell, John F.

PD March 1987. TI Empirical Macroeconomics For Independent Economies: What Next? AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 87-03; Department of Economics, University of British Columbia #997-1873 East Mall, Vancouver, B.C. CANADA V6T 1W5. PG 21. PR \$.20 per page Canadian to other than educational institutions. JE 023, 132, 212, 411, 431. KW World Models. Linked Econometric Models. Trade Models.

AB In this paper, I have been asked to take a forward-looking overview of the structure and uses of empirical models of macroeconomic interdependence, with an eye to identifying potential improvements in the design and use of particular models, and pointing out possible gaps in the portfolio of models and results discussed elsewhere in this volume. I shall be specific about what sort of additional experiments and results would be of most use in helping to understand and compare model structure and properties. The outline of the paper is as follows: 1. An overview of the range and nature of the models assessed for this conference; 2. A comparative review of the current results, with emphasis on examining the extent of, and possible explanations for, the range of results across countries and across models; 3. Suggestions for further experiments designed to reveal more clearly the properties of existing and future models, with special reference to the supply side; 4. Suggestions for further development of specific models, either to improve their economic structure and properties, or to increase their power to explain the source and significance of international differences of macroeconomic structure and performance. This latter use of linked models, as a source of results for comparative macroeconomics, has so far been undeveloped. If it were to become important, it has implications for the estimation and presentation of results, with more emphasis to be placed on revealing and testing the extent of inter-country differences in economic structure; 5. Consideration of ways of making better use of international models, and of ways of making closer links between the models and the interests of researchers and policy-makers.

PD March 1987. TI Some Comparative Macroeconomics Of The United States, Japan, and Canada. AA Department of Economics, University of British Columbia. SR University of British Columbia Department of Economics Discussion Paper: 87-04; Department of Economics, University of British Columbia 997-1873 East Mall, Vancouver, B.C. CANADA V6T 1W5. PG 31. PR \$.20 per page Canadian to other than educational institutions. JE 023, 132, 212, 123. KW United States. Japan. Canada. Current Account. Trade Balance.

AB To set the stage for any investigation of the economic relations among nations it is useful to start with a comparative review of the key macroeconomic features of the countries in question. This is desirable when the countries are large enough to influence the whole world

economy or closely enough linked by trade and capital movements that each is influenced by what happens in the others. It is especially important for Japan and the United States in the late 1980s, since they both have large and largely offsetting current account imbalances, of such a size as to make the timing and nature of their reversal the major source of uncertainty in a world economy that does not lack uncertainties. This paper attempts to set the stage by: 1. Reviewing the alternative approaches to explaining current account imbalances; 2. Presenting comparative data on the evolution of private, government and foreign savings in the United States, Japan and Canada; 3. Analysing the growth of investment, output and productivity in the three countries; and 4. Attempting a synthesis of the factors affecting the evolution of current and capital account imbalances in the three countries.

Helm, Dieter

PD June 1987. TI Mergers, Takeovers and the Enforcement of Profit Maximization. AA Lady Margaret Hall, Oxford. SR Oxford Applied Economics Discussion Paper: 28; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PR No Charge. JE 611, 612, 313, 514. KW Mergers. Takeovers. Satisficing. Profit Maximizing. AB This paper critically appraises one of the traditional arguments for a laissez faire policy towards takeovers and mergers - that they prevent managers from deviating from profit maximization. This argument is shown to be fallacious. The traditional managerial models of the firm are reexamined, and it is shown that the capital market takeover mechanism and managerial competition are insufficient to guarantee the enforcement of profit maximization. In addition to the usual market failures, informational problems associated with maximization under uncertainty weaken the enforcement mechanism, and the paper provides a justification of a satisficing rationale. The policy implication is that laissez faire is less likely to generate optimal resource allocation.

Helpman, Elhanan

TI Stabilization with Exchange Rate Management Under Uncertainty. AU Drasen, Allan; Helpman, Elhanan.

Hendry, David F.

PD January 1987. TI Monte Carlo Experimentation Using PC-Naive. AU Hendry, David F.; Neale, Adrian J. AA Nuffield College, Oxford. SR Oxford Applied Economics Discussion Paper: 20; Institute of Economics and Statistics, St. Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 43. PR No Charge. JE 211, 214, 212. KW Monte Carlo. Recursive Estimation. Dynamic Models. Simulation Experiments. Computer Software.

AB PC-NAIVE is an interactive, menu-driven Monte Carlo program which embodies a system of linear simultaneous equations allowing measurement errors, structural breaks, misspecified models and encompassing tests. Experiments are easily designed, simulated and analysed interactively. Under stationarity, population moments and probability limits of statistics are calculated for comparison with their finite sample counterparts.

Recursive techniques for OLS and IV yield every feasible sample size for roughly twice the cost of the largest alone. The automatic graphing of e.g. the effects of increasing sample size on bias and efficiency, or contrasts with asymptotic outcomes or a second estimator etc. provide visually compelling output on a PC.

PD March 1987. TI Assertion Without Empirical Basis: An Econometric Appraisal of Monetary Trends. in the United Kingdom by Milton Friedman and Anna J. Schwartz. AU Hendry, David F.; Ericsson, Neil R. AA Hendry: Nuffield College, Oxford. Ericsson: International Finance Division, Federal Reserve Board. SR Oxford Applied Economics Discussion Paper: 25; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 53. PR No Charge. JE 311, 212, 132. KW Conditional Models. Conditioning. Diagnostic Testing. Dynamics Econometrics. Encompassing. Error-Correction Models. Evaluation Criteria. Exogeneity. Progressive Research Strategy. Cointegration.

AB This paper evaluates several fundamental empirical claims about monetary behaviour in the United Kingdom made by Milton Friedman and Anna Schwartz in their 1982 book *Monetary Trends in the United States and the United Kingdom*. Those claims include: the exogeneity of money; the constancy and correct specification of their money-demand equation; the presence of a "shift in liquidity preference" for 1921-55; the validity of analysing their data on money, income, prices, and interest rates by regression techniques; and the success of their phase-averaging procedure in isolating long-run behaviour. They fail to support many of their empirical assertions with valid econometric evidence: in particular, they leave untested both the conditions necessary to sustain their inferences and the conclusions they claim to reach. However, those either are in part directly testable from their data or have testable implications: we test many of those hypotheses and reject virtually all of them. For instance, using their data, we reject basic claims of parameter constancy, price homogeneity, and normality of the disturbances made for their empirical model of money demand. The methodology of modelling and model evaluation is described and is used to develop a money-demand model which has an unexplained residual variance less than one tenth that of the money-demand equation in Friedman and Schwartz, yet is more constant than theirs over their sample period. Moreover, it is a model of money which is not interpretable as a model of prices, since the constancy holds only conditional on contemporaneous price information. Issues of methodology, encompassing, cointegration, exogeneity, and invariance all are addressed. Once an empirical model has been formalised, conditional on treating it as (provisionally) valid, a vast range of empirical phenomena are excluded. Thus, a model is testable against their potential occurrence, using tests which would be valid under the very assumptions of that model. That destructive role of econometrics is not impugned by any of the current methodological debates and, in fact, plays a crucial part in a progressive research strategy.

Hercowitz, Zvi

PD March 1987. TI The Israeli Economy: Maturing

through Crisis - A Review Essay. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 5-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 11. PR No Charge. JE 121, 122, 133. KW Inflation. Economic Growth. Israeli Economy. Israel. Hyperinflation.

AB This essay addresses some of the important economic problems of the Israeli Economy by focusing on the volume "The Israeli Economy: Maturing through Crises", Harvard University Press, 1986, edited by Yoram Ben-Porath. The book includes 17 articles of different researchers, covering a wide range of aspects of the Israeli economy. The two main economic issues addressed in the essay are the inflationary process and the drastic slowdown in economic growth in 1973/74. The essay also attempts to integrate some of the topics addressed by different authors in the volume, and to evaluate further avenues of research that these analyses can motivate.

Hildebrandt, Gregory G.

PD July 1986. TI Accounting for the Cost of Tactical Aircraft. AU Hildebrandt, Gregory G.; Sze, Man Bing. AA The Rand Corporation. SR Rand Note: N-2420; The Rand Corporation, 1700 Main Street, Post Office Box 2138, Santa Monica, CA 90406-2138. PG 45. PR No Charge. JE 114, 541, 621, 631. KW Weapon Systems. Armament. Aircraft. Defense Costs. Air Force.

AB The rising cost of weapon systems has been a serious concern to defense policymakers. It has been unclear, however, whether costs are rising faster or slower than the quality of the equipment. This Note develops a methodology for estimating the relationship between the cost of tactical aircraft and military quality. The authors apply the methodology to aircraft produced since 1950. Their analysis suggests that most of the cost growth derives from the increase in aircraft quality that has occurred over time. Furthermore, the cost increase has been reduced by improvements in the technology of aircraft production.

Hirsch, Werner Z.

PD May 1987. TI Rent Control as an Unconstitutional Taking and Too Intrusive a Method. AA University of California, Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 444; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. PG 9. PR \$2.50; checks payable to University of California Regents. JE 932, 931, 916. KW Rent Control. Courts. Constitutionality. Rental Housing.

AB It appears that the courts are approaching a turning point in their view of rent control. Some have begun to join economists in recognising the pitfalls of such controls. By holding some of them to constitute an unconstitutional taking and finding others too intrusive a method compared to their achievement levels, they are likely to prod government officials to explore other, more socially desirable courses.

PD June 1987. TI Contracting-Out: A Literature Review. AU Hirsch, W. Z.; Harding, R. AA University of California, Los Angeles.

SR University of California at Los Angeles Department of Economics Working Paper: 466; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. PG 34. PR \$2.50; checks payable to University of California Regents. JE 322, 513. KW Privatization. Government Contracts. Public Choice. Monitoring Theory. Shirking.

AB When governments award contracts to private firms (or to other governments) for the production of goods or services which the contracting governments would otherwise produce themselves, the practice is described as contracting-out. Thus, contracting-out is a special type of privatization, a policy strongly advocated by the governments of the United States and the United Kingdom, among others. A review of the literature points to two major strands of thought that provide an intellectual underpinning for contracting-out. They are shirking-monitoring theory and public choice theory. The two will be taken up in turn.

Hirshleifer, Jack

PD June 1987. TI The Analytics of Ongoing Conflict. AA University of California, Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 467; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. PG 47. PR \$2.50; checks payable to University of California Regents. JE 114, 026. KW Conflict. War. Peace. Rent-Seeking. Cournot Solution. Stackelberg Solution.

AB This paper is a pioneering investigation into the analysis of ongoing conflict, a topic that has received remarkably little study heretofore. The underlying premises are that: (1) Individuals, groups, or nations are rarely if ever totally at war or totally at peace. Instead, they divide their efforts between peaceful productive activity and mutually advantageous exchange on the one hand, versus conflictual activity aimed at appropriating others' resources (or defending against such intrusions). (2) Conflictual activity, or to be more concrete "fighting", is an entirely normal line of business that will be engaged in by all parties whenever doing so is profitable. The steady-state equilibrium that ensues from these self-interested efforts has two main features. First, the resources devoted to peaceful production mainly determine the available social total of income, and second, the relative commitments of resources to fighting mainly determine the distribution of that income among the parties. The model of general equilibrium is characterized by four major features: (i) a resource partition function, (ii) a social production function, (iii) a fighting success function, and (iv) an income distribution function. The most novel aspect is of course the fighting success function, which shows how the resources respectively devoted to combat effort determine the division of the social income aggregate. Strikingly different consequences were found, depending upon whether fighting success depends upon the ratio of the fighting efforts or the numerical difference between them (the latter leading to an equation in logistic form). The paper explored three classes of equilibria: the symmetrical Cournot solution concept, the Stackelberg solution, and a less familiar contingent-commitment or "hierarchical" solution called here Threat-and-Promise

(TAP).

Hodges, James S.

TI Utilizing the Data from the Army's National Training Center: Analytical Plan. AU Levine, Robert A.; Hodges, James S.; Goldsmith, Martin.

Holderness, Clifford G.

PD March 1987. TI The Assignments of Rights, Income Effects and the Allocation of Resources. 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: GPB86-03; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 25. PR NC single copies 50 cents each paper beyond 5 in each order. JE 916, 011, 022, 024. KW Property Rights. Law and Economics. Coase Theorem. Resource Allocation. Common Resources. Wealth Effects. Distribution of Wealth.

AB Whether a re-assignment of legal rights alters the distribution of wealth and through this changes the allocation of resources to the relevant activities in the economy remains a controversial and unresolved social cost issue. For example, if a court awards a valuable right to one farmer, do more individuals become farmers to obtain that right? Some, most notably Coase, claim that the allocation of resources is invariant with the assignment of rights because parties can transfer rights from low value users to high value users. Others, to the contrary, assert that the assignment of rights induces wealth effects that cause resources to be re-allocated. Thus, an assignment of a right to one farmer induces others to become farmers. In this paper it is shown that the opposing sides in this debate are without acknowledging it analyzing fundamentally different situations. Those who argue that the allocation of resources is invariant with the assignment of rights examine situations where property rights have been established in the resource necessary for individuals to assert the right. Here wealth effects are windfalls. Critics of the invariance proposition, however, analyze situations where property rights have not been established in the necessary resource. Here wealth effects influence entrants. Thus, one side is analyzing the allocation of private goods while the other side is analyzing the allocation of a variation of a common access resource. Accordingly, the conflicting conclusions in the literature on the relation among the assignment of rights, wealth effects, and the allocation of resources stem not from differences in logic but from examining fundamentally different situations.

Hosek, Susan

PD November 1986. TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John. AA The Rand Corporation. SR Rand Report: R-3424-HCFA; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. PG 77. PR No Charge. JE 913, 918, 914. KW Rehabilitation Hospitals. Health Care. Medicare.

AB When Congress directed that Medicare develop a prospective payment system for acute hospital care in 1983, rehabilitation hospitals were exempted. The exemption arose from a concern that the patient classification system and payment approach developed for acute care hospitals would be inappropriate for inpatient rehabilitative care. Rehabilitative care emphasizes the treatment of functional limitation and disabilities, and it usually follows a period of acute or surgical care. In contrast, acute hospital care emphasizes the stabilization of the acute problem. Consequently, one issue concerns the desirability of basing payment for rehabilitative care on diagnosis instead of some measure of functional status. A more fundamental issue is whether a separate payment system for rehabilitation is desirable given that rehabilitation typically follows acute hospital care. A major purpose of this report is to evaluate the hypothesis that functional status, rather than diagnosis, determines the costs of a rehabilitative stay and to identify other sources of differences in costs.

Howitt, Peter

PD June 1987. **TI** Disinflation and Exchange Rates: Canada, 1980-85. **AA** University of Western Ontario. **SR** University of Western Ontario Centre for the Analysis of National Economic Policy Working Paper: 87-02; Department of Economics, University of Western Ontario, London, Ontario CANADA, N6A 5C2. **PG** 33. **PR** No Charge. **JE** 311, 431, 133, 134, 131. **KW** Monetary Policy. Exchange Rates. Central Bank. Inflation. Canada.

AB During the first half of the 1980s the industrialized world underwent a severe recession and experienced disinflation. This experience raises many questions and contains many lessons concerning the interactions between exchange rates and monetary policy. The purpose of this paper is to discuss some of these lessons and questions from the perspective of a single small open economy. The paper examines the particular case of Canada. Although the paper touches on many issues, there is one central problem that runs through the discussion. This is the problem that the Bank of Canada faced when trying to disinflate in the face of disturbances such as unusually high real interest rates in the rest of the world, that were putting downward pressure on the Canadian Dollar. If the Bank were to resist the resulting depreciation it would have to follow a more restrictive policy than it wanted. On the other hand if it allowed a substantial depreciation this would jeopardize its anti-inflation programme.

Hubbard, Raymond

TI Advertising and Cigarette Industry Sales in the United States. **AU** Saghafi, Massoud M.; Hubbard, Raymond.

Ioannides, Yannis M.

PD May 1987. **TI** Econometric Identification of Consumption and Investment Demands for Housing. **AA** Virginia Polytechnic Institute and State University. **SR** Virginia Polytechnic Institute and State University Working Paper in Economics: E87-06-02; Working Paper Coordinator, Department of Economics Sandy Hall, Blacksburg, VA 24061. **PG** 10. **PR** Free by request.

JE 932, 212. **KW** Housing Investment. Switching Regressions. Housing Consumption. Housing Stock.

AB Housing stock may be desired for both consumption and investment purposes. We show that separate demand equations for consumption and investment may be identified by means of maximum likelihood within a switching regressions-type simultaneous equations model.

Jackman, Richard

PD May 1987. **TI** Innovative Supply-Side Policies to Reduce Unemployment. **AU** Jackman, Richard; Layard, Richard. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 281; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 35. **PR** No Charge. **JE** 822. **KW** Unemployment. Labour Market Policy. Incomes Policy. Job Guarantee.

AB This paper reviews the arguments and the evidence for three sets of policy proposals to reduce the natural rate of unemployment: (i) policies to reduce the duration of long-term unemployment, based on the provision of a job guarantee to long-term unemployed people, (ii) tax-based incomes policies, (iii) shorter working hours and early retirement. The analysis offers strong support for the first two, but no support for the third.

Jagannathan, Ravi

TI Seasonalities in Security Returns: The Case of Earnings Announcements. **AU** Chari, V. V.; Jagannathan, Ravi; Ofer, Aharon R.

John, Kose

PD February 1987. **TI** Risk-Shifting Incentives and Signalling Through Corporate Capital Structure. **AA** Graduate School of Business, University of Chicago. **SR** New York University Salomon Brothers Center Working Paper: 411; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 40. **PR** \$3.00. **JE** 521, 026, 512. **KW** Corporate Financing. Uncertainty Resolution. Leveraged Buy-outs. Corporate Debt.

AB This paper is an exploratory attempt to relate optimal corporate financing arrangements to patterns of temporal resolution of uncertainty in the underlying technology. Since, in general, the timing of the uncertainty resolution could be different for different agents (say corporate insiders vs. outsiders) some of the issues which arise are familiar from asymmetric information models. However, a systematic analysis of the implications for corporate finance of the interaction of private information and temporal resolution of uncertainty has not been undertaken. It is hoped that such a program of research will yield better answers to questions of timing of various corporate financing decisions. For instance, is there an optimal maturity structure of corporate claims (debt claims in particular) for a technology with given characteristics? Why are projects in their initial phase often financed differently from projects in more advanced phases? For example, growth firms use a larger component of retained earnings for their financing than mature firms

and project financing (incorporated as legally segregated entities) is often used for the start-up phase of many ventures to switch later to more conventional modes. Why do leveraged buy-outs often involve technologies at advanced (mature) phases of their operation? Why do the dividend policies of mature firms differ markedly from those of growth firms? This paper is an attempt to provide a framework to study some of these issues.

Johnson, Leland L.

PD January 1987. TI Issues in International Telecommunications: Government Regulation of Comsat. AA The Rand Corporation. SR Rand Report: R-3497-MF; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. PG 56. PR No Charge. JE 613, 612, 621, 635. KW Comsat. INTELSAT. Communication. Satellites. FCC. Fiber Optics. Underseas Cable. Monopoly.

AB The question of government regulation of the Communications Satellite Corporation (Comsat) is paramount because of Comsat's market power in providing international satellite circuits to U.S. users. Comsat is the monopoly supplier of INTELSAT international satellite links. However, Comsat's satellite monopoly does not translate into a full monopoly of U.S. overseas communications links, since underseas cable is a substitute. Taking into account advances in cable technology, and especially the introduction of fiber optics, Comsat's market power is being eroded and government regulation is becoming less important. However, the Federal Communications Commission (FCC) imposes circuit-loading restrictions that force AT&T to use a greater number of satellite circuits, essentially guaranteeing Comsat a portion of AT&T's traffic. This report discusses the history of the FCC's attempt to regulate Comsat, assesses FCC actions to reduce Comsat's market power, and evaluates the past effects of and future needs for such regulation.

Jones, C.

PD March 1987. TI Investor Portfolios and Firm Capital Structure Choice in the Presence of Taxes. AU Jones, C.; Vousden, N. AA The Department of Economics, The Faculties, Australian National University. SR Australian National University Working Paper in Economics and Econometrics: 144; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. PG 26. PR No Charge. JE 521, 522, 323, 313, 311. KW Firm Capital Structure. Taxes. Investor Portfolio. Risk Neutrality.

AB This paper examines the role played by investor risk and tax preferences in firm capital structure choice when there are short-selling constraints which restrict homemade leverage. In complete securities markets, investors are implicitly risk neutral with respect to firm capital structure decisions, because the desired amount of risk spreading can be achieved on personal account. In such a case, tax preferences alone determine the corporate securities held by investors (the Miller equilibrium), and individual firm capital structure is irrelevant to them. Once constraints restrict homemade leverage, firm capital structure choice impacts on investor risk spreading opportunities, and unless investors are risk neutral, they are shown to desire

debt-equity ratios which involve trade-offs between tax and risk preferences. This paper employs a generalized version of models developed by Auerbach and King and Taggart. The results obtained by those authors are derived as special cases of our model when investors are assumed to be risk neutral.

Jonung, Lars

TI The Stochastic Properties of Velocity: A New Interpretation. AU Bordo, Michael D.; Jonung, Lars.

Joshi, Heather

PD March 1987. TI Pay Differences Between Men and Women: Longitudinal Evidence from the 1946 Birth Cohort. AU Joshi, Heather; Newell, Marie Louise. AA London School of Hygiene and Tropical Medicine. SR Centre for Economic Policy Research Discussion Paper: 156; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 59. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 822, 824, 850, 917, 212. KW Female Earnings. Sex Discrimination. Equal Pay Legislation. Human Capital. Salaries. Wages.

AB The MRC National Survey of Health and Development provides data on the hourly pay of males and females at age 26 in 1972 and in 1977. These have been subjected to regression analysis to see how far the gap between men's and women's pay is statistically explicable by (a) a "human capital" model covering measures of ability, educational attainment and work experience, and (b) a model which also includes characteristics of the sector of employment. Our analysis indicates that the conventional indicator of pay discrimination - the residual differential ascribable only to gender - is smaller in 1977 than in 1972, after the introduction of equal pay legislation, though even in 1977 a considerable portion is still unexplained. Women's pay would have been 17 per cent to 32 per cent higher had they been remunerated at the rates estimated for males. The smaller estimate comes from a version of the human capital model which allows for unobserved heterogeneity by including pay in 1972 among the determinants of pay in 1977. For 1972, where no such allowance is possible, the human capital model leaves an unexplained pay gap of 51 per cent which narrows to 38 per cent when job characteristics are allowed for. All these estimates control for the possibility of selectivity bias among the subset of females observed working, but this bias is not found to be significant in this instance. The disadvantage of being female is greater for women with less advantaged backgrounds, and in job categories which tend to be lower paid.

PD March 1987. TI Family Responsibilities and Pay Differentials: Evidence from Men and Women Born in 1946. AU Joshi, Heather; Newell, Marie Louise. AA 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 822, 824, 841, 917. KW Female Earnings. Family Responsibilities. Marital Status. Equal Opportunities. Childbearing. 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.

PD March 1987. TI Pay Differences Between Men and Women: Longitudinal Evidence from the 1946 Birth Cohort. 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: 156; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 59. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 917, 824, 822, 851, 841. KW Female Earnings. Sex Discrimination. Equal Pay Legislation. Human Capital. Wage Differential. Salaries. Wages.

AB The MRC National Survey of Health and Development provides data on the hourly pay of males and females at age 26 in 1972 and in 1977. These have been subjected to regression analysis to see how far the gap between men's and women's pay is statistically explicable by (a) a "human capital" model covering measures of ability, educational attainment and work experience, and (b) a model which also includes characteristics of the sector of employment. Our analysis indicates that the conventional indicator of pay discrimination - the residual differential ascribable only to gender - is smaller in 1977 than in 1972, after the introduction of equal pay legislation, though even in 1977 a considerable portion is still unexplained. Women's pay would have been 17 per cent to 32 per cent higher had they been remunerated at the rates estimated for males. The smaller estimate comes from a version of the human capital model which allows for unobserved heterogeneity by including pay in 1972 among the determinants of pay in 1977. For 1972, where no such allowance is possible, the human capital model leaves an unexplained pay gap of 51 per cent which narrows to 38 per cent when job characteristics are allowed for. All these estimates control for the possibility of

selectivity bias among the subset of females observed working, but this bias is not found to be significant in this instance. The disadvantage of being female is greater for women with less advantaged backgrounds, and in job categories which tend to be lower paid.

TI Demographic Change, Economic Growth and Social Welfare in Europe. AU Ermisch, John; Joshi, Heather.

Judd, M. A.

TI Forestry Research: A Provisional Global Inventory. AU Evenson, Robert E.; Mergen, Francois; Judd, M. A.; Putnam, J.

Junger, M.

TI Experiments in Quadratic 0-1 Programming. AU Barahona, F.; Junger, M.; Reinelt, G.

Kahn, Shulamit

PD May 1987. TI Constraints on the Choice of Work Hours: Agency Vs. Specific-Capital. AU Kahn, Shulamit; Lang, Kevin. AA University of California, Irvine. SR National Bureau of Economic Research Working Paper: 2238; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 821, 824, 825, 832. KW Wages. Value of Marginal Product. Contracts. Workers. Leisure. Job Tenure. Hours Constraints.

AB Most models of implicit lifetime contracts imply that at any particular point in time, workers' wages and value of marginal product (VMP) will diverge. As a result, the contract will have to specify hours as well as wages, since firms will desire to prevent workers from working more when the wage is greater than VMP and from working less when the wage is less than VMP. This divergence, combined with the fact that in efficient contracts, the hours are set so that VMP equals the marginal value of leisure, implies that workers will face binding hours constraints. We show that the two major models of lifetime contracts, the agency model and the firm-specific capital model, make opposite predictions regarding the relation between work hours constraints and job tenure. We test these predictions. Our results indicate that neither model of efficient long-term contracts explains the observed pattern of hours constraints. Therefore, we briefly consider other explanations.

Kalaba, Robert

PD July 1986. TI Time-Varying Regression Via Flexible Least Squares. AU Kalaba, Robert; Tesfatsion, Leigh. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8633; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 49. PR No Charge. JE 211, 212. KW Time-Varying Parameters. Flexible Least Squares. Sequential Solution. Smoothing Splines.

AB Suppose an investigator obtains noisy observations on a process over a time span $1, \dots, N$. He believes the observations have been generated via a linear regression model with coefficient vectors b_n which evolve only slowly over time, if at all. A basic problem for the investigator is

to determine whether his theory is compatible with his observations -- that is, does there exist any estimated coefficient sequence $b = (b_1, \dots, b_n)$ which satisfies his theory in an acceptable approximate sense for the realized sequence of observations? Define the "residual efficiency frontier" to be the lower bound for the set of all pairs $(rM(b), rD(b))$ of squared residual measurement and dynamic error sums corresponding to possible sequences b . A "flexible least squares" estimate $b(\mu)$ is constructed for the coefficient sequence which is minimally incompatible with the prior specifications of the investigator, in the sense that the residual efficiency frontier is attained. The entire residual efficiency frontier is traced out as the parameter μ is varied from 0 to infinity. An exact procedure is developed for sequentially updating $b(\mu)$ as the process length increases and additional observations are obtained.

Kanbur, Ravi

TI Food Subsidies and Poverty Alleviation.
 AU Besley, Timothy; Kanbur, Ravi.

Kane, Edward J.

PD May 1987. TI Who Should Learn What From the Failure and Delayed Bailout of the ODGF. AA The Ohio State University. SR National Bureau of Economic Research Working Paper: 2260; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 310, 613. KW Ohio Deposit Guarantee Fund. Deposit Insurance. Financial Deregulation. Insolvency. Financial Crisis.

AB In March 1985, the failure of the Ohio Deposit Guarantee Fund (the ODGF) sent shock waves reverberating through the financial world. This episode is popularly interpreted as evidence of the dangers of both private deposit insurance and continuing financial deregulation. This paper argues that policies of financial deregulation played little role in the ODGF insolvency. The failure of the ODGF was instead a failure of government regulation, rooted in inadequacies in the ODGF information and enforcement systems. The ODGF may be conceived as the Federal Savings and Loan Insurance Corporation writ small. Both agencies share many of the same structural imbalances: large unresolved losses, explicitly mispriced and underreserved services, inadequate information and monitoring systems, insufficient disciplinary powers, and a susceptibility to political pressures to forbear. Doctors perform autopsies on dead patients to improve their ability to protect living ones. This paper's autopsy of the institutional corpse of the ODGF focuses on identifying the kinds of disturbances that transform structural imbalances into a full-fledged crisis. Our research underscores the way that deceptive accounting and underfinanced insurance funds contain crisis pressures in the short run by setting the stage for more severe problems down the line. As financial markets approach more and more closely the perfect and complete markets beloved by finance theorists, the amount of time that can be bought by policies that merely defer crisis pressures is shrinking and becoming hard to use productively.

Kane, Robert

TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John.

Kannai, Yakar

PD February 1987. TI A Characterization of Monotone Individual Demand Functions. AA The Weizman Institute of Science, Rehovot, Israel. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-101; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 9. PR No Charge. JE 022, 021. KW Consumer Behavior. Individual Demand. Market Demand.

AB In this note we will establish an intrinsically defined (with no reference to any utility representation) necessary and sufficient condition for the monotonicity of f , an induced demand function.

Kannan, R.

PD October 1986. TI Covering Minima and Lattice Point Free Convex Bodies. AU Kannan, R.; Lovasz, L. AA Kannan: Carnegie-Mellon University. Lovasz: Eotvos Lorand University, Budapest. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86427; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 16. PR No Charge. JE 213. KW Lattice Point Free Convex Bodies. Covering Minima. Integer Programming.

AB Suppose K is a convex set of nonzero volume in the Euclidean n -space R^n . For any real number t , let $tK =$ (symbol) tx : x element of K (symbol). The infimum over all positive real numbers t such that the translates of tK by all integer vectors together cover all of R^n is called the "covering radius" of K (with respect to the lattice Z^n). The covering radius and related quantities have been studied extensively in the Geometry of Numbers for convex bodies symmetric about the origin. In this paper, we define and study the "covering minima" of a general convex body; the covering radius will be one of these minima. The covering minima have among other things, applications to algorithms for Integer Programming which was our initial motivation. This motivation is explained in some detail later. We use the results of the paper to derive bounds on the width of lattice point free convex bodies and analyze their structure.

Karni, Edi

PD January 1987. TI Aggregate and Distributional Effects of Social Security. AU Karni, Edi; Zilcha, Itzhak. AA Karni: Department of Political Economy, Johns Hopkins University. Zilcha: Tel-Aviv University. SR Johns Hopkins Department of Political Economy Working Paper: 184; Department of Political Economy, Johns Hopkins University, Baltimore, MD 21218. PG 23. PR No Charge. JE 915, 023. KW Social Security. Distribution of Income. Overlapping Generations. AB When private annuities are available and priced competitively, it is unlikely that circumstances exist where

a society of rational individuals can benefit from a social security system that derives its revenues from taxes on labor income, and allocates the benefits uniformly to the old. Any such system is bound to have adverse effects on the allocation of resources and on the distribution of income. In this paper, using the framework of a nonstationary competitive equilibrium in a two-period overlapping generations economy with production, we study the response of the aggregate supply of labor, capital, output, and saving to the introduction of a fully-funded, fair, social security program. We also study the impact of such a program upon the intragenerational distribution of income.

PD March 1987. **TI** Multivariate Risk Aversion for Nonexpected Utility Preferences. **AU** Karni, Edi; Machina, Mark. **AA** Machina: University of California, San Diego. Karni: Department of Political Economy, Johns Hopkins University. **SR** Johns Hopkins Department of Political Economy Working Paper: 185; Department of Political Economy, Johns Hopkins University, Baltimore, MD 21218. **PG** 17. **PR** No Charge. **JE** 022, 026. **KW** Expected Utility. Risk Aversion. Uncertainty. Preferences.

AB Motivated by a discrepancy between theory and evidence, Machina '1982 presented an alternative model of preferences over probability distributions which is consistent with some of the experimental evidence and preserves most of the useful theoretical properties of the expected utility model. The essence of this approach consists of replacing the hypothesis of linearity in the probabilities with the weaker assumption of a nonlinear but "smooth" preference functional $V(\cdot)$ over probability distributions. Preference functionals satisfying this property were shown to imply "local expected utility maximising behavior" in the sense that differential shifts in the probabilities about a given distribution will be ranked according to the expectations of a "local utility function" at that distribution. When the local utility functions are assumed to possess those properties that are typically ascribed to von Neumann-Morgenstern utility functions, then except for the specific property of global linearity, the general behavioral implications of expected utility theory will be preserved. In this paper our purpose is to extend this approach to preferences over multivariate probability distributions and to examine the robustness of results concerning multivariate risk aversion that have been obtained under the expected utility hypothesis. In particular, we are concerned with three well-known results: (a) that interpersonal comparisons of attitudes toward multivariate risks require that the individuals being compared have the same ordinal preferences over the commodity space; (b) that comparisons of the same individual's preferences over multivariate risks at different wealth levels require that his or her ordinal preferences be homothetic; and (c) that the comparative statics effects of increasing risk aversion may be inferred from the properties of individuals' ordinal preferences. We shall find that each of these results extend when their respective assumptions are applied to what we shall term "local ordinal preferences."

Katseli, Louka T.

PD October 1986. **TI** Theoretical and Empirical

Determinants of International Labour Mobility A Greek-German Perspective. **AU** Katseli, Louka T.; Glytsos, Nicholas P. **AA** Katseli: The Athens School of Economics, Athens, Greece. Glytsos: Centre of Planning and Economic Research, Athens, Greece. **SR** Centre for Economic Policy Research Discussion Paper: 148; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 30. **PR** 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. **JE** 823, 023, 420, 430, 440. **KW** Labor Mobility. Emigration. Migration. Repatriation. Employment Abroad. Guest Worker. Saving. **AB** Emigration of labour and its subsequent repatriation can best be understood as phases of an intertemporal exchange process, of a relatively abundant factor, namely unskilled labour, for a relatively scarce factor, namely capital. This capital flow initially consists of financial capital, that is of emigrant remittances, and of human capital at the time of repatriation. This analytical hypothesis is empirically tested on Greek data and seems to be validated by the empirical evidence presented. The formulation of the emigration-repatriation cycle as an intertemporal phenomenon highlights the need for forward-looking policies. The analysis suggests that planning for the period of net immigration and of reduced remittances should be an integral component of policy in the sending country.

Kawai, Masahiro

PD May 1987. **TI** Fiscal Policy, Anticipated Switches in Methods of Finance, and the Effects on the Economy. **AU** Kawai, Masahiro; Maccini, Louis J. **AA** Kawai: Institute of Social Science, University of Tokyo. Maccini: Department of Political Economy, Johns Hopkins University. **SR** Johns Hopkins Department of Political Economy Working Paper: 189; Department of Political Economy, Johns Hopkins University, Baltimore, MD 21218. **PG** 46. **PR** No Charge. **JE** 321, 023, 322, 323. **KW** Fiscal Policy. Switching. Government Finance. Government Expenditure. Taxes.

AB We have constructed a macroeconomic model designed to analyze the effects on the economy of anticipated switches in the method by which government expenditures are financed. The model is a full employment one, and is based on forward-looking consumers that have finite horizons and possess perfect foresight.

Keilson, Julian

PD December 1986. **TI** A Proposal for Reducing the National Trade Deficit. **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: PPS86-08; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 5. **PR** NC single copies 50 cents each paper beyond 5 in each order. **JE** 431, 421, 411, 441, 422. **KW** Trade Balance. Quotas. Tariffs. Current Account. Trade Deficit. Scrip System. International Trade.

AB A foreign trade policy is needed which supports as much open market competition as possible subject to the single constraint of overall balance of trade in goods and

services. A program is proposed which encourages both internal and external competition and induces such balance of trade without any quotas or tariffs.

Khandker, Rezaul

PD August 1986. TI A Model of Layoff, Search and Job Choice and its Estimation. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8638; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 39. PR No Charge. JE 821, 824, 212. KW Search. Layoff. Prior Wage. Recall. Competing Risks. Reservation Wage. Separation. Non-Parametric. Poisson. Lognormal.

AB In this paper, a labor market model of search and transitions is analysed where jobs are characterized by layoffs in some cases and permanent separations in others. For searchers with a choice between the two types of jobs, the dynamic value functions are solved for reservation wages. For the laidoff worker, the wage at the prior job emerges as a very important determinant of the optimal strategy during layoff. In addition, permanently separated workers consider anticipated layoffs as important prior to accepting a layoff-characterized job. Conditioning on the non-parametric estimates of the reservation wages, maximum likelihood estimates are obtained for the structural parameters of the model using a homogeneous sample of workers from the EOPP (Employment Opportunities Pilot Project) survey data.

Khandker, Shahidur Rahman

PD June 1986. TI Farmer Education and Farm Efficiency: The Role of Education Revisited. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 506; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 38. PR \$2.00. JE 912, 716, 121. KW Agriculture. Agricultural Education. Agricultural Household Model. Switching Regressions. Farm Efficiency. AB If labor market participation for self-employed farm households and family labor use in family farms are decisions determined endogenously, the estimation of production (or profit) functions suffer from a simultaneity bias unless appropriate instruments are used. An agricultural household model that encompasses both the production and consumption decisions of farm operators can motivate the choice of such instruments. A conditional profit function is estimated with an endogenously determined family labor demand function. Differences in production behavior conditional on farm household's participation in the labor market are tested using a two-stage switching regressions model with a criterion function that enables endogenous switching. Empirical results using farm-level survey data from Bangladesh indicate that endogeneity of family labor demand is indeed statistically significant for farm households who do not participate in the labor market, but is not significant for those who do participate in the labor market. The results further suggest that the effect of education is underestimated when account is not taken of the endogeneity of labor demand. When the productivity gains made from decisions regarding appropriate level and

mix of family labor use in farm and off-farm market uses are taken into account, results indicate that farmer education has indeed a productive value to farm efficiency.

Khndaker, Shahidur Rahman

PD July 1986. TI Labor Market Participation of Married Women in Bangladesh. AA Postdoctoral Fellow at Yale University. SR Yale Economic Growth Center Discussion Paper: 514; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 20. PR \$2.00. JE 824, 121, 841, 826, 921. KW Labor Supply. Bangladesh. Female Labor Participation. Multinomial Logit Model. Tradition. Customs. Time Allocation.

AB For a country such as Bangladesh, a nested multinomial logit model is utilized to test whether female time allocation is inflexibly fixed by local customs and whether informal activity is an independent category in a woman's choice structure of work. The econometric analysis of cross-sectional women's time-use data from rural Bangladesh suggests that a woman's activity as an unpaid labor in a family enterprise is not a distinct category in her choice structure of work. The results support the alternative hypothesis, however, that women's time-use patterns are not exclusively fixed by the society, but are partially influenced by individual-, household-, and community-level economic constraints.

Kim, Kyoo Hong

TI Demoeconomic Dynamics A Classical Analysis. AU Day, Richard H.; Kim, Kyoo Hong; Macunovich, Diane.

Kim, Wan Jin

PD December 1986. TI On The Rate of Convergence of the Core. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8617; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 12. PR \$3.50. JE 021. KW Core. Competitive Gap. Gap-Minimizing Prices.

AB We relax the two restrictive assumptions in Anderson's theorem (1986) which proves that in a general sequence of finite economies with smooth preferences, the rate of convergence of the competitive gap with respect to the "gap-minimizing" prices is the inverse of the square of the number of agents. The assumptions are the boundary condition and the strict positiveness of individual endowments.

King, Robert G.

PD March 1986. TI Nominal Surprises, Real Factors and Propagation Mechanisms. AU King, Robert G.; Plosser, Charles I. AA King; William E. Simon Graduate School of Business Administration and the Department of Economics, University of Rochester. Plosser: William E. Simon Graduate School of Business Administration. SR University of Rochester Center for Research in Government Policy and Business Working Paper: GPB86-04; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 21. PR NC single copies 50 cents each paper beyond 5 in each order. JE 131, 311,

023. **KW Business Cycles. Price Surprises. Propagation Ratios. Monetary Surprises.**

AB This paper is an exploratory empirical study that attempts to evaluate the relative contribution of three factors – price surprises, real factors and propagation mechanisms – to the overall variance of real economic activity. First, we lay out a basic real output equation that depends on nominal surprises, real shocks and propagation mechanisms. We develop a statistic we call the propagation ratio for evaluating the contribution of propagation mechanisms to the variance of economic time series. The empirical investigation treats monetary surprises as the pertinent nominal disturbances and is largely supportive of the proposition that propagation mechanisms are the central first-order aspect of business cycles. We also attempt to isolate the relative importance of price surprises in output and unemployment fluctuations. We find that it is difficult to pin down the relative importance of price surprises. Fundamentally, we believe, this difficulty reflects the fact that it is difficult to explain price surprises with variables typically thought to drive aggregate demand (money, government expenditures, etc.).

PD August 1986. **TI** Production, Growth and Business Cycles. **AU** King, Robert G.; Plosser, Charles I. **AA** King: William E. Simon Graduate School of Business Administration and Department of Economics, University of Rochester. Plosser: William E. Simon Graduate School of Business Administration. **SR** University of Rochester Center for Research in Government Policy and Business Working Paper: GPB86-05; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 43. **PR** NC single copies 50 cents each paper beyond 5 in each order. **JE** 131, 111, 023, 212. **KW** Business Cycles. Capital. Intertemporal Production.

AB A primary emphasis of the interwar business cycle theorists was, in the terminology of Frisch (1933), on how shocks to market economies were propagated through time and across sectors. Many of these interwar business cycle theorists such as Hayek (1931) stressed the intertemporal character of production as central to understanding the course of economic fluctuations. In this essay, we return to the main theme of the interwar business cycle theorists, explaining how capital and intertemporal production structures play a central role in business fluctuations. If one accepts the case for a general equilibrium view of economic fluctuations, we emphasize that it is the presence of many capital goods and rich opportunities for intertemporal substitution in production that make general equilibrium models dynamic in ways that may permit us to mimic economic time series.

Kletzer, Kenneth

TI Tariffs, Saving, and the Current Account. **AU** Engel, Charles M.; Kletzer, Kenneth M.

PD December 1986. **TI** External Borrowing By LCD'S: A Survey of Theoretical Issues. **AA** Yale University. **SR** Yale Economic Growth Center Discussion Paper: 523; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 60. **PR** \$2.00. **JE** 121, 433, 443, 441.

KW LDCs. External Debt. International Borrowing.

AB This paper surveys a broad range of theoretical issues of international borrowing and lending with a focus on the effects of sovereign immunity. The literature in credit market imperfections and existing theoretical models of sovereign borrowing provide a basis for much of the survey. Several institutional features of LDC borrowing are discussed heuristically which have not been formally modelled in the literature. These parts of the survey are intended as an agenda for further work. A brief critical review of the econometric implementation of the theoretical models of sovereign lending is included.

PD December 1986. **TI** Credit Markets and Patterns of International Trade. **AU** Kletzer, Kenneth; Bardhan, Pranab. **AA** Kletzer: Yale University. Bardhan: University of California. **SR** Yale Economic Growth Center Discussion Paper: 520; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 26. **PR** \$2.00. **JE** 421, 422, 431, 433, 443. **KW** Trade. International Credit Markets. Moral Hazard. Risk. Debt. Credit 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.

TI Saving and Investment In An Open Economy With Non-Traded Goods. **AU** Engel, Charles; Kletzer, Kenneth.

Knutson, Ronald D.

TI Gains and Losses of Sugar Program Policy Options. **AU** Leu, Gwo Juin M.; Schmitz, Andy; Knutson, Ronald D.

Koch, Karl Josef

PD February 1987. **TI** Revealed Preference Theory and Mean Demand. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-103; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 23. **PR** No Charge. **JE** 021, 022. **KW** Exchange Economies. Mean Excess Demand. Income Distribution. Preferences. WARP. SARP. Consumer. Consumption.

AB It is well known that neither the weak nor the strong axiom of revealed preference are additive. Moreover, the theory of preference maximization does not imply anything for mean excess demand functions of exchange economies, as long as the distribution of preferences is unknown and the consumption sets are unbounded. Taking lower bounds of the consumption sets explicitly into account changes these results. We compute conditions every mean demand function has to satisfy if the normalized distribution of income does not change with prices and if all consumers satisfy the weak or the strong axiom of revealed preferences. In the special case of exchange economies with two commodities only and where consumers satisfy the axiom of revealed preference these

conditions are sufficient for a function to qualify for mean demand of such an economy. Finally we prove that the class of possible mean demand functions in these models changes with the number of consumers.

PD February 1987. **TI** Mean Demand When Consumers Satisfy the Weak Axiom of Revealed Preference. **AA** University of Bonn. **SR** Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-102; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** No Charge. **JE** 022. **KW** Mean Demand. Weak Axiom of Revealed Preference. **WARP**. Consumer Behavior. Demand Function.

AB In this paper we consider consumption sectors of individuals whose demand functions are homogeneous of degree zero in prices and income. All individuals hold the same income and satisfy the corresponding budget identity and the (weak) axiom of revealed preference. It is shown that on any compact set of strictly positive prices and incomes this setup does not impose any restrictions on the class of mean demand functions other than the budget identity, provided the individual consumption sets are unbounded. If they are bounded below the result holds locally.

Koford, Kenneth

PD April 1987. **TI** Different Preferences, Different Politics: Demand-and-Structure Explanation. **AA** California Institute of Technology and the University of Delaware. **SR** Caltech Social Science Working Paper: 640; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PR** No Charge. **JE** 025. **KW** Legislative Politics. Vote-Trading. Legislature. Interest Groups. Distributive Issues. Regulative Issues.

AB Different types of legislative politics are explained in this paper by the distribution of legislators' demands. Demands are legislators' willingness to pay, with votes on other issues, effort, or work. Different demand distributions require different institutions and "politics" for the legislators to obtain the results they want. The types of politics can be largely identified with Lowi's typology of interest-groups interaction. Distributive politics combines many individual projects, each with a small intensely favorable minority and a large, slightly opposed majority. since no one project could pass on its own, compound bills are created that benefit all legislators. Redistributive issues have two large intensely opposed groups. Their politics are conflict, mobilisations of one's partisans, and efforts to obtain the votes of the few indifferents (Schneider 1979). Regulative politics have two forms. Simple regulative issues have small intense groups for and against the bill, and a vast majority of indifferents. Each side appeals to the indifferents, creating a natural arena for vote-trading. Complex regulative issues allow the distribution of demand to change as the bill proposal is modified. They often involve novel legislation, whose consequences are not clear. Those dominating the agenda control the nature of the bill to maximize their gains and assure a majority for passage (Shepsle and Weingast 1984). Vote-trading also occurs, since most legislators are indifferent.

Kong, Paul

TI Wages, Prices, Unemployment and Output in U.K. Industry. **AU** Nickell, Stephen; Kong, Paul.

Krane, Spencer

PD March 1987. **TI** The Forecasting Accuracy of Auto Assembly Schedules. **AU** Krane, Spencer; Reifschneider, David. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Special Studies Section Discussion Paper: 216; Special Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 27. **PR** No Charge. **JE** 132, 212, 631, 510. **KW** Automobile Production. Prediction. Cars. Auto Industry. Forecast Error. Production Plans.

AB This paper examines the forecast properties of U.S. automakers' assembly schedules, which are collected and published by Ward's Automotive Reports. We find that the schedules systematically and significantly overpredict actual output and that this bias appears more pronounced during slumps in the auto market. We also find that after adjusting for systematic bias, the assembly schedules' forecast accuracy cannot be significantly improved using estimates of simple time series models of the forecast error process. However, the automakers' production plans and a structural forecasting model of the auto market appear to be complementary; the accuracy of the assembly schedules is improved by pooling them with the ex post production forecasts from the econometric model, while the assembly schedules add useful information to the structural model's forecasts of auto sales.

Kuran, Timur

PD July 1986. **TI** The Craft Guilds of Tunis and Their Amins: A Study in Institutional Atrophy. **AA** University of Southern California. **SR** University of Southern California Modelling Research Group Working Paper: M8632; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 40. **PR** No Charge. **JE** 046, 121, 611. **KW** Guilds. Tunisia. Unions. Institutional Rigidity. Social Conservatism. Bazaars.

AB This paper explores why the craft guilds of Tunis lost their dominance in the city's economy following shocks of the European industrial revolution. Focusing on the role of the guilds' leaders, the amins, it attributes the lack of an effective response to the guilds' inherent conservatism and to difficulties in achieving collective action. Special attention is devoted to the anti-competitive ethic that the amins promoted, and some thoughts are offered regarding current efforts to resuscitate the office of the amin, which over the years has atrophied.

TI The Wholesale Produce Market of Tunis and its Porters: A Tale of Market Degeneration. **AU** Asabou, Mongi; Kuran, Timur; Nabli, Mustapha.

PD May 1987. **TI** The Tenacious Past: Theories of Personal and Collective Conservatism. **AA** University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8717; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152.

PG 38. PR No Charge. JE 025, 112, 621. KW Institutions. Public Choice. Social Change. Conservatism. Stability. Path-Dependence. Social Rigidity. Adaptation.

AB A number of theories have been developed to explain why societies do not always adapt to changing conditions. These are critiqued here, with an emphasis on their substantive and methodological differences. A few theories ascribe lack of adaptation to personal conservatism, attachment to the past by the individual members of society. Others invoke collective conservatism, the attachment of society as a whole to collective past choices. Methodologically, the theories differ in the extent to which they resort to optimistic functionalism. A limitation common to most is that they overlook the feedback from actual choices to individuals' beliefs and preferences.

Lang, Kevin

TI Constraints on the Choice of Work Hours: Agency Vs. Specific-Capital. **AU** Kahn, Shulamit; Lang, Kevin.

Laroque, Guy

PD May 1987. **TI** Estimation of Multi-Market Fix-Price Models: An Application of Pseudo-Maximum Likelihood Methods. **AU** Laroque, Guy; Salanie, Bernard. **AA** INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8705; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 45. **PR** No Charge. **JE** 212. **KW** Disequilibrium Econometrics. Fixed-Price Models. Pseudo-Maximum Likelihood Methods. Full Information Maximum Likelihood. Monte Carlo Simulation.

AB The past decade has seen the econometric implementation of macroeconomic multi-market fix-price models for a number of European countries. The procedure in use, the full information maximum likelihood (FIML) method, unfortunately becomes very cumbersome and seems out of reach when additional features are incorporated in the model (disaggregation into micro-markets, opinion surveys.). The purpose of the present work is to prove the fruitfulness of the following estimation strategy: use Monte-Carlo simulations to compute the first and second order moments of the endogenous variables, and maximize a resulting pseudo likelihood function to estimate the parameters. We first describe the PML method in the context of the so-called canonical disequilibrium model. We then apply it to a small aggregated macroeconomic model previously studied under FIML by Artus, Avouyi-Dovi, Laroque (1985), where we allow for a disaggregation into micro-markets. The results we obtain are strikingly similar to theirs. This both demonstrates in this example the robustness of the FIML procedure to the introduction of micromarkets and stresses the high efficiency ratio of the PML method in obtaining reliable estimates at a smaller cost.

PD May 1987. **TI** On the Inventory Cycle and the Instability of the Competitive Mechanism. **AA** INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8704; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 41. **PR** No Charge. **JE** 131, 133, 134, 023. **KW** Cycles. Inventories. Stabilization Policies. Business Cycle.

AB This paper presents a model of the business cycle with perfect foresight where the mere presence of inventories is responsible for the appearance of the cycle. The basic assumption of the model is that the price system does not adjust instantaneously to its competitive value. Then inventory holding destabilizes the tatonnement dynamics and creates the cycle. A Wicksellian cumulative process generates both the booms, where the real rate of return on cash is smaller than the natural rate of interest obtained by the inventory holders, and the recessions, where inventories are dominated by money balances.

Laskar, Daniel

PD February 1987. **TI** Conservative Central Bankers in a Two-Country World. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8705; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 35. **PR** 20 FF. **JE** 311, 431, 432. **KW** Central Banks. International Cooperation. Monetary Shocks. Open Economy.

AB In a closed economy framework Rogoff has developed the argument that it can be beneficial for society to appoint a "conservative" central banker. We extend this analysis to a two-country world in order to take into account the strategic interaction between the monetary authorities of the two countries. We show that conservative central bankers may now deteriorate the situation of both countries, and that the distinction between symmetric and asymmetric shocks becomes crucial: while symmetric shocks weaken the case for conservative central bankers, asymmetric shocks strengthen it. Considering some alternative specification of the model, we again emphasize the importance of the distinction between symmetric and asymmetric shocks for our issue, but argue that these shocks may switch their roles, depending on the value of some parameter of the model. Finally, we underline that the symmetry-asymmetry distinction is also crucial for the issue of counterproductive cooperation. However, in the context of the present model, such a distinction should be applied to the initial structural situations of the two countries.

Layard, Richard

TI Innovative Supply-Side Policies to Reduce Unemployment. **AU** Jackman, Richard; Layard, Richard.

PD May 1987. **TI** Dealing with Long-Term Unemployment. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8711; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 26. **PR** No Charge. **JE** 824, 822, 821. **KW** Unemployment. Government Policy. Wage Behavior. Job Guarantee.

AB I believe that long-term unemployment is the greatest element of unnecessary waste in our society today. For while some unemployment is necessary to control inflation, the long-term unemployed are very poor inflation-fighters. So we should do everything possible to eliminate long-term unemployment. In contrast to this we have in fact allowed long-term unemployment (that is of people unemployed for over a year) to increase to over 40 per cent of our total unemployed. In this we are in marked

contrast to many countries like Sweden where the proportion is under 15 per cent. We have much to learn from how they tackle these problems. So in this lecture I want to start by analysing the role of long-term unemployment in our current economic problems. I shall then go on to discuss existing policy towards the long-term unemployed and show how much better it would be if we directed resources to offering every long-term unemployed person a job.

Lee, Lung Fei

PD May 26, 1987. TI Microeconomic Models of Rationing, Imperfect Markets, and Non-Negativity of Constraints. AU Lee, Lung Fei; Pitt, Mark M. AA Department of Economics, University of Minnesota. SR University of Minnesota Economic Development Center Bulletin: 87-6; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. PG 31. PR free. JE 212, 022, 121, 723. KW Rationing. Limited Dependent Variables. Energy Demand. Developing Countries. Translog Cost Function. Demand Curves. Indonesia.

AB This paper provides a theoretically consistent approach to estimating demand relationships in which kink points occur either in the interior or on the vertices of the budget set. There are important classes of problems in developing countries which demonstrate such kinked budget sets including binding non-negativity constraints. This paper also extends these methods to the estimation of production structures. As an application a translog cost function for three energy inputs is estimated from cross-sections of individual Indonesian firms.

Leiderman, Leonardo

PD January 1987. TI Testing Ricardian Neutrality with an Intertemporal Stochastic Model. AU Leiderman, Leonardo; Rasin, Assaf. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 2-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 35. PR No Charge. JE 131, 023. KW Ricardian Equivalence. Consumption. Taxes. Israel. Intertemporal Model.

AB The purpose of this paper is to develop and estimate a stochastic-intertemporal model of consumption behavior and to use it for testing a version of the Ricardian-equivalence proposition with time series data. Two channels that may give rise to deviations from this proposition are specified: Finite horizons and liquidity constraints. In addition, the model incorporates explicitly the roles of taxes, substitution between public and private consumption, and different degrees of consumer goods' durability. The evidence, based on data for Israel in the first half of the 1980s, supports the Ricardian neutrality specification, yielding plausible estimates for the behavioral parameters of the aggregate consumption function.

PD May 1987. TI Testing Ricardian Neutrality with an Intertemporal Stochastic Model. AU Leiderman, Leonardo; Rasin, Assaf. AA Department of Economics, Tel-Aviv University. SR National Bureau of Economic Research Working Paper: 2258; National Bureau of Economic Research, 1050 Massachusetts Avenue,

Cambridge, MA 02138. PR \$2.00. JE 023, 212, 921. KW Intertemporal Model. Consumption Behavior. Ricardian Equivalence. Israel. Consumption Function.

AB The purpose of this paper is to develop and estimate a stochastic-intertemporal model of consumption behavior and to use it for testing a version of the Ricardian-equivalence proposition with time series data. Two channels that may give rise to deviations from this proposition are specified: Finite horizons and liquidity constraints. In addition, the model incorporates explicitly the roles of taxes, substitution between public and private consumption, and different degrees of consumer goods' durability. The evidence, based on data for Israel in the first half of the 1980s, supports the Ricardian neutrality specification, yielding plausible estimates for the behavioral parameters of the aggregate consumption function.

LeRoy, Stephen

PD April 1986. TI A Monetarist Model of Inflation. AU LeRoy, Stephen; Raymon, Neil. AA LeRoy: University of California, Berkeley and University of California, Santa Barbara. Raymon: University of Missouri, Columbia. SR University of California at Santa Barbara Department of Economics Working Paper: 265; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. PG 60. PR No Charge. JE 023, 311. KW Inflation. Overlapping Generations Model. Neutrality. Money Growth. Monetary Policy.

AB We consider an overlapping generations model with new money introduced via autocorrelated lump-sum transfers. Hence, the own rate of return on money is fixed, implying that (dynamic) neutrality may fail due to inflation tax effects. We derive a condition, less restrictive than serial independence of monetary growth rates, which is necessary as well as sufficient for neutrality. We determine whether various properties of the joint distribution of monetary growth rates and inflation rates which are weaker than neutrality -- for example, positive correlation between the two -- can be expected to obtain in general settings.

PD September 1986. TI Knight on Risk and Uncertainty. AU LeRoy, Stephen F.; Singell, Larry D. Jr. AA LeRoy: University of California at Berkeley and University of California at Santa Barbara. Singell: University of California at Santa Barbara. SR University of California at Santa Barbara Department of Economics Working Paper: 266; Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. PG 23. PR No Charge. JE 026. KW Knight. Risk. Uncertainty. Subjective Probabilities. Insurance Markets. Moral Hazard. Adverse Selection.

AB It is argued that the received interpretation of Knight's classic risk-uncertainty distinction -- as concerning whether or not agents have subjective probabilities -- constitutes a misreading of Knight. On the contrary, Knight shared the modern view that agents can be assumed always to act as if they have subjective probabilities. We document our contention that by uncertainty Knight instead meant situations in which insurance markets collapse due to moral hazard or adverse

selection. Knight's discussion of market failure, although always informal and in places inaccurate, was in many respects a remarkable anticipation of the modern literature.

Leu, Gwo Juin M.

PD September 1985. TI Gains and Losses of Sugar Program Policy Options. AU Leu, Gwo Juin M.; Schmits, Andy; Knutson, Ronald D. AA Leu and Schmits: Department of Agricultural and Resource Economics, University of California, Berkeley. Knutson: Department of Agricultural Economics, Texas A&M University. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 381; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 24. PR \$4.80. JE 422, 421, 713. KW Sugar Program Policy. Agricultural Policy. Supply and Demand. Benefit-Cost. Trade Barriers. Protection. Price Supports. Substitutes. Import Quota. Tariff. Target Price. Interest Groups.

AB The purpose of this article is to provide a quantitative insight into the distribution of costs and benefits associated with various sugar policy options. In the process, inferences can be drawn for the positions of each of the major sugar policy interest groups. By contrast with previous analyses of this type, explicit consideration is given to shifts in sugar demand resulting from the substitution of corn sweeteners for sugar. In the analysis, three general policy options were considered: the program prevailing in 1983 involving a sugar price support achieved primarily by the imposition of import quotas, a tariff substituted for the quota, and a target price (deficiency payment) substituted for the quota.

Levine, Robert A.

PD June 1986. TI Utilizing the Data from the Army's National Training Center: Analytical Plan. AU Levine, Robert A.; Hodges, James S.; Goldsmith, Martin. AA The Rand Corporation. SR Rand Note: N-2461-A; The Rand Corporation, 1700 Main Street, Post Office Box 2138, Santa Monica, CA 90406-2138. PG 27. PR No Charge. JE 114, 811. KW Army. Military Training. Military Personnel. War Games. Warfare.

AB This Note describes the Army's operations at its National Training Center (NTC) at Fort Irwin, California, and ways in which the data collected during those operations can be used to derive lessons about Army doctrine, training, and weapon systems. The discussion of operations at the NTC includes descriptions of the training conducted there, the facilities for training and data collection, and the types of data actually or potentially available. As a laboratory for deriving lessons, the NTC has unique advantages and disadvantages. These have implications for using the NTC experience to formulate and test hypotheses. In particular, the authors emphasize the importance of testing the results of formal analytic procedures against the experience and intuition of NTC and other military personnel. (See also N-2384.)

Lewis, Tracy R.

TI Negotiated Trade Restrictions with Private Political Pressure. AU Feenstra, Robert C.; Lewis, Tracy R.

Lichtenberg, Frank R.

PD March 1987. TI A Note on Aggregation of Variables in Least-Squares Regression. AA Columbia Business School. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-08; 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 (add \$1.00 outside United States, Canada and Puerto Rico). JE 211, 621, 825. KW Aggregation. Regression. Coefficient Restrictions. R&D. Research and Development. Productivity.

AB We consider the properties of the estimator $\hat{\beta}$ when the true model is $y = \beta_1 X_1 + \beta_2 X_2 + u$, but the restriction $\beta_1 = \beta_2 = \beta_3$ is incorrectly imposed. We show that the probability limit of $\hat{\beta}$ is a weighted sum of β_1 and β_2 ; the weights sum to one but do not necessarily lie in the unit interval, so that $\hat{\beta}$ need not be bounded by β_1 and β_2 . Sufficient conditions for such bounding are derived. Certain changes in the moments of X_1 and X_2 have "perverse" effects on the weights. We illustrate the consequences of inappropriate aggregation of variables with an empirical example of the effect of R&D investment on productivity.

PD March 1987. TI A Comparison of NSF/Census and Alternative Estimates of Company and Federal Funds for Research and Development. AA Columbia Business School. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-07; 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 226, 621, 522. KW Research and Development. Data reliability. Multiple Indicators. R&D.

AB The NSF/Census annual (confidential) survey of industrial research and development (the RD-1 survey) is the basis for the official United States statistics on industrial Research and Development. This paper analyses differences between NSF/Census and alternative (publicly-available) estimates (derived from 10-K reports and a federal procurement database) of company and federal funds for Research and Development. We advance and test a hypothesis which accounts for systematic discrepancies between Research and Development-1- and 10-K-based estimates of company Research and Development. We also develop estimates of the extent of measurement error reflected in the various measures of Research and Development.

Lin, Justin Yifu

PD January 1987. TI Supervision, Incentives and the Optimum Size of A Labor-Managed Firm. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 525; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 37. PR \$2.00. JE 514, 511, 513, 824, 833, 825. KW Income Sharing. Labor-Managed Firm. Management. Motivation. Monitoring. Peer Pressure.

AB This paper analyzes the impacts of income-sharing on the incentives to work and on the supply of labor in a labor-managed firm. Monitoring is explicitly incorporated in the measurement of labor input. The incentive

structure in a labor-managed firm is distorted. Perfect monitoring is not Pareto-efficient. However, an income-sharing scheme does not change the argument that the incentives to work are positively correlated with the degree of accuracy in monitoring effort. The supply of effort in a labor-managed firm also depends on peer pressure which is a substitute for monitoring. The existence of peer pressure reduces the distortion in incentive structure and thus improves the efficiency of time allocation. In addition, the supervisibility of effort in the production process imposes a constraint on the optimum size of a labor-managed firm.

PD January 1987. TI The Household Responsibility System Reform In China: A Peasant's Institutional Choice. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 528; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 17. PR \$2.00. JE 716, 713, 821, 825, 611. KW China. Agriculture. Peasants. Monitoring. Incentives. Household Production System.

AB Agricultural production in China has changed from the team based system to the household based system. It is argued in this paper that the main reason for this institutional change is the difficulty of monitoring in a team mainly engaging in agricultural production. The incentives to work in a team depend on how accurately labor input is monitored. Because of the nature of agricultural production, the optimum degree of monitoring is very low and thus the incentives to work are also very low in a production team. Under some simplified assumptions, it can be proved that the change from the team system to the household system is a Pareto-improvement. The empirical data on the diffusion of the household production system in each province are found to be consistent with the above theory and with the induced institutional innovation hypothesis.

PD March 1987. TI Household Farm, Cooperative Farm, and Efficiency: Evidence From Rural De-Collectivization In China. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 533; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 42. PR \$2.00. JE 713, 716, 112, 045. KW Farms. Collective Farms. De-Collectivization. China. Monitoring. Incentives. Cooperative Farming. Agricultural Productivity.

AB A model of household optimizing behavior in a household farm and a cooperative farm is presented in this paper. In the household farming system, the returns to scale are sacrificed, while, in the cooperative farming system, effort metering is required for the purpose of income distribution. Their relative efficiencies are compared with adoption of specific functional forms. It is found that, when monitoring is minimal in the cooperative farm due to the difficulty of monitoring in agricultural production, a household will supply more effort in the household farm than in the cooperative farm; and, as a consequence, the total output produced by the household farming system is larger than that produced by the cooperative farming system. In addition, a change from the cooperative system to the household system is very likely to be a Pareto-improvement. Empirical data collected from recent rural de-collectivization in China are applied to examine some implications of the above model.

The results are consistent with the predictions of the theory. It is found that, due to the increase in effort supply by each household, a shift from the cooperative farming system to the household farming system resulted in a 19.7 per cent productivity jump, and over 60 per cent of the 26.4 per cent output growth between 1980 and 1983 can be attributed to this institutional change.

PD April 1987. TI Rural Factor Markets In China After the Household Responsibility System Reform. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 535; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 45. PR \$2.00. JE 711, 713, 716, 121, 045. KW China. Household Farms. Land Market. Credit Market. Lending. Agricultural Markets. Farming. Agriculture.

AB This paper investigates the factor markets, namely, the land, labor, and credit markets in China's rural areas after the household responsibility system reform. It is found that the institution of the household-based farming system created an allocative inefficiency and the factor markets are a necessary mechanism for improving the resource allocation in rural areas. Most restrictions on the functioning of factor markets have been removed; however, the existences of factor markets are still very limited. As the extent of land market and labor market crucially depends on the extent of credit market, the limited transactions in the land and labor markets should be explained by the underdevelopment of credit market, which may be due to the fact that lenders' rights are not protected. In order to facilitate factor market transactions, the Chinese government may have to change its position on the lenders' rights.

Lipsey, Robert E.

PD May 1987. TI Changing Patterns of International Investment In and By the United States. AA National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 2240; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 440, 441, 442, 443, 433, 522, 042. KW Debtor Nation. Creditor Nation. Direct Foreign Investment. United States.

AB The international investment account of the United States has gone through several cycles. Before World War I, the United States was a borrower most of the time and an international debtor. Between the two World Wars, it was first a lender and then a refuge for foreign capital. After World War II, the United States became the world's major lender and creditor and in the last few years it has become the world's largest borrower, and, according to the official accounts, even a net debtor. United States direct investment abroad began while the United States was still an overall borrower and debtor. The technological leaders among United States manufacturing firms pioneered in this technique for exploiting their particular knowledge and skills by producing in other countries. The peak in the importance of foreign assets relative to the domestic assets of United States companies was probably reached during the early 1970s. While the flow of direct investment from the United States has slowed, there has recently been a large inflow of foreign direct investment into the United States. That inflow has roughly tripled the share of

foreign-owned companies in the United States since 1950. While foreign-owned firms accounted for only about 3 1/2 per cent of total United States employment after all the recent growth in foreign direct investment in the United States, the shares in manufacturing and wholesale trade were considerably higher. Foreign firms accounted for almost 40 per cent of chemical industry employment, but for less than 10 per cent in all the other industries. The foreign shares in service industries, aside from wholesale trade, increased, but remained below 3 per cent.

Lohmoller, Jan Bernd

TI A Latent Variable Regression Model of Nineteenth Century Economic Development. AU Adelman, Irma; Lohmoller, Jan Bernd; Morris, Cynthia Taft.

Long, Jr John B.

PD February 1987. TI Sectoral vs. Aggregate Shocks in the Business Cycle. AU Long, Jr John B.; Plosser, Charles I. AA Long, Jr.: William E. Simon Graduate School of Business Administration, University of Rochester. Plosser: 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: GPB87-04; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. PG 11. PR NC single copies 50 cents each paper beyond 5 in each order. JE 131, 226, 212, 111. KW Business Cycle. Disaggregated Shocks. Comovement. Factor Analysis.

AB This short paper investigates the comovement among industry outputs in an attempt to determine the extent to which it can be characterized as resulting from a common aggregate shock or from a more diverse set of independent disturbances. Using a factor analysis procedure we conclude that the potential for an aggregate shock explanation of cross-industry comovement is limited.

Lorenz, Hans Walter

PD November 1986. TI On the Uniqueness of Limit Cycles in Business Cycle Theory. AA Georg-August Universitat. SR University of Southern California Modelling Research Group Working Paper: M8644; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 14. PR No Charge. JE 023, 131, 213. KW Business Cycles. Limit Cycles. Uniqueness. Lienard Equation. Multiplier Accelerator Model.

AB The paper investigates sufficient conditions for the uniqueness of limit cycles in standard business cycle theory. The application of the Levinson/Smith theorem to the generalized Lienard equation reveals that these sufficient yet not necessary conditions usually imply that the uniqueness of limit cycles in, e.g., the Kaldor-model or the Phillips-multiplier-accelerator model cannot be established without additional restrictive assumptions.

Lott, John R. Jr

PD June 1987. TI Education, Democracy, and the Cost of Government Wealth Transfers. AA National Fellow, Hoover Institution and Montana State University. SR Stanford Hoover Institute Working Paper in

Economics: E-87-24; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 51. PR No Charge. JE 025, 912. KW Education. Public Choice. Politics. Information.

AB Traditional public choice is too narrow when it focuses on political entrepreneurs maximizing political support given the technology of marshalling political constituencies. I claim that innovations are made by politicians in lowering the cost of making governmental transfers of wealth and that public provision of education is such an innovation. By changing the relative cost of acquiring different types of information, views more favorable to the rulers are produced. Testable implications are derived for how the return to government inculcation of views varies with the level of "totalitarianism" and "socialism." The results confirm these relationships for both different specifications and across different years. The results are not affected by one's beliefs concerning measurement error.

PD June 1987. TI Why Comply: Enforcing the Minimum Wage and Other Price Control Laws. AU Lott, Jr John R.; Roberts, Russell D. AA Lott, Jr.: Hoover Institution; Montana State University. Roberts: Stanford University. SR Stanford Hoover Institute Working Paper in Economics: E-87-21; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 38. PR No Charge. JE 916, 022, 824, 227. KW Price Controls. Enforcement. Victimless Crimes. Wages.

AB Price controls can be enforced by defining one side of an illegal transaction as guilty and the other as the victim. When the guilty party must refund the difference between the control price and the transaction price to the victim, the guilty party's ex ante incentive to violate the law is removed because the ex post incentive of the victim to report the violation. This paper explores the efficiency of this "one-sided" enforcement mechanism. We show how it is used to enforce the minimum wage and other price control laws. We correct and extend earlier results on the minimum wage, showing that even first time violators of the minimum wage law have an incentive to comply with the law, and that the law is effectively enforced by fewer than a thousand compliance officers because of the efficiency of one-sided enforcement. We then discuss the political economy of using price control to regulate activities traditionally defined as victimless crimes.

TI The Effects of Rent Maximising Unions on Why Workers Join Unions. AU Bronars, Stephen G.; Lott, John R. Jr.

Lovasz, L.

TI Covering Minima and Lattice Point Free Convex Bodies. AU Kannan, R.; Lovasz, L.

Low, William

TI Financial Innovations: Measuring the Opportunity for Product Innovation. AU Desai, Meghnad J.; Low, William.

Maccini, Louis J.

TI Fiscal Policy, Anticipated Switches in Methods of

Finance, and the Effects on the Economy. AU Kawai, Masahiro; Maccini, Louis J.

Machina, Mark

TI Multivariate Risk Aversion for Unexpected Utility Preferences. AU Karni, Edi; Machina, Mark.

Macunovich, Diane

TI Demeconomic Dynamics A Classical Analysis. AU Day, Richard H.; Kim, Kyoo Hong; Macunovich, Diane.

Magnus, Jan R.

PD April 1987. TI The Bias of Forecasts from a First-Order Autoregression. AU Magnus, Jan R.; Pesaran, Bahram. AA London School of Economics. SR London School of Economics Suntory Toyota International Centre for Economics and Related Disciplines Working Paper: 87/153; London School of Economics and Political Science, Houghton Street, LONDON, WC2A 2AE. PG 46. PR No Charge. JE 211, 132. KW Autoregressive Process. Forecasting. Bias.

AB In this paper we hope to shed some light on the bias of (multi-period) least-squares forecasts in dynamic econometric models by studying the simplest example of such a model, namely the first-order autoregressive process $y(t)$ defined by $y(t) = a + by(t-1) + u(t)$ where $(u(t))$ is a sequence of identically $N(0, \sigma^2)$ distributed random variables and $|b| < 1$. This model, including the specification of the initial observation, is explained more fully in section 2.

Mankiw, N. Gregory

PD May 1987. TI The Optimal Collection of Seigniorage: Theory and Evidence. AA Harvard University. SR National Bureau of Economic Research Working Paper: 2270; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 311, 321, 212, 023. KW Monetary Policy. Fiscal Policy. Taxation. Inflation. Intertemporal Budget Constraint. Random Walks.

AB This paper presents and tests a positive theory of monetary and fiscal policy. The government chooses the rates of taxation and inflation to minimize the present value of the social cost of raising revenue given exogenous expenditure and an intertemporal budget constraint. The theory implies that nominal interest rates and inflation are random walks. It also implies that nominal interest rates and inflation move together with tax rates. United States data from 1952 to 1985 provide some support for the theory.

Mann, Catherine L.

PD May 1987. TI Protection and Retaliation: Changing the Rules of the Game. AA International Finance Division, Federal Reserve Board. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 309; International Finance Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 42. PR No Charge. JE 410, 420, 421, 422, 042, 026, 431. KW Protectionism. Game Theory. Smoot-Hawley Tariff.

Trade Policy. Political Lobbies. Trade Tension. Trade Balance. Tariffs. Trade Relations.

AB An examination of the macroeconomic, political, and institutional environment of the 1930s and the 1980s suggests a set of stylized facts associated with periods of trade tension and incidents of trade retaliation. Periods of macroeconomic stress precipitate changes in the conduct of and implementation of United States trade policy, which then can lead to escalating trade tension, protectionist measures, and perhaps retaliation. Macroeconomic stress, especially when linked to external events, decreases the political benefits of following a liberal trade policy and changes the economic consequences of following a particular trade strategy. As a result, it may be difficult for trading partners to predict the conduct of United States trade policy. Moreover, in reexamining its commitment to free trade, the United States may change its response to policies abroad. Finally, the United States may not only deviate from its established behavioral norms, but may also stray from the consensual international code of trade conduct. These stylized relationships between macroeconomic environment and political and institutional pressures are applied to a simple game-theory paradigm. Changes in the environment and balance of political power change the elements of a payoff matrix. The policy implications of the model are that the United States should, subject to the constraints of a democracy, make clear both the direction of its trade policy and the magnitudes of any penalties. Much of the tit-for-tat trade retaliation observed in recent months may represent just such a communications effort.

Mann, Joyce

PD February 1987. TI Setting Medicare Capitation Rates for the Frail and Elderly. AU Mann, Joyce; Neu, C. R. AA The Rand Corporation. SR Rand Note: N-2550-OLSHS; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 74. PR No Charge. JE 913, 918, 914. KW Health Care Costs. Medicare. Aged. Medical Care. Hospitalization.

AB As federal efforts to promote capitated delivery and financing arrangements in the Medicare program intensify, the method of calculating the capitation rate has come under increased scrutiny. The current method is based on the adjusted average per capita cost (AAPCC), an estimate of the Medicare cost of serving participants in risk-based programs if these participants were served instead by fee-for-service providers. This Note describes the method and data used to calculate and to update the AAPCC, reviews some of the limitations of the AAPCC methodology, notes some of the proposals that have been advanced for refining the AAPCC, discusses some alternative methods for setting capitation payment rates, considers promising avenues for future research, and describes an interim calculation of a revised adjuster to the AAPCC to reflect the higher costs of caring for the frail elderly.

Margaritis, Dimitris

PD January 1987. TI Strong Convergence of Least Squares Learning To Rational Expectations. AA Department of Economics, University of British Columbia. SR University of British Columbia

Department of Economics Discussion Paper: 87-02; Department of Economics, University of British Columbia #997-1873 East Mall, Vancouver, B.C. CANADA V6T 1W5. PG 7. PR JE 211, 023, 212. KW Least Squares Estimation. Learning Process. Rational Expectations.

AB Strong convergence to the rational expectations equilibrium is investigated for a discrete time stochastic model in conjunction with least squares estimation. It is shown that the possible convergence points of the resulting learning process are only the stable points of an associated differential equation and that the situation can converge almost surely to the rational expectations equilibrium.

Marini, Giancarlo

PD April 1987. TI Monetary and Fiscal Policy in an Optimizing Model with Capital Accumulation and Finite Lives. AU Marini, Giancarlo; van, der Ploeg Frederick. AA Marini: London School of Economics. Van Der Ploeg: Centre for Labour Economics, London School of Economics and Tilburg University, the Netherlands. SR London School of Economics Centre for Labour Economics Discussion Paper: 277; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. PG 28. PR No Charge. JE 023, 311, 321. KW Finite Lives. Superneutrality of Money. Capital Accumulation. Fiscal Policy. Optimizing Model. Monetary Policy.

AB This paper considers the effects of monetary and fiscal policies in an optimizing model with capital accumulation and finite lives. An increase in monetary growth is no longer superneutral in a money-capital economy, but leads to a reduction in the real interest rate and a boost of capital, seignorage revenues, human wealth and total consumption. The effect on real money balances and social welfare is ambiguous. When open-market operations are used to increase monetary growth, there are no real effects unless preferences are non-separable in consumption of goods and real money balances. A tax-financed fiscal expansion increases the rate of interest, reduces capital, real money balances and human and non-human wealth, and therefore crowds out consumption by more than 100 per cent. A bond-financed fiscal expansion increases capital by less and crowds out consumption by more than a money-financed fiscal expansion. None of the above policies affect the real interest rate, capital, total wealth and consumption when lives are infinite.

Marini, Margaret Mooney

TI Advancing Social Research: An Essay Based On S. Lieberman's Making It Count. AU Singer, Burton; Marini, Margaret Mooney.

Marwaha, Satwant S.

PD 1986. TI Some Single Endogenous Variable Rational Expectation Models. Asymptotic Theory and Finite Sample Simulations Compared. AU Marwaha, Satwant S.; Sargan, J. D. AA Sargan: Department of Economics, London School of Economics. Marwaha: Econometrics Project, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.60; Department of Economics, London School of Economics and Political

Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 35 Pages. PR No Charge. JE 211, 212, 213. KW Rational Expectations. Asymptotic Theory. Monte Carlo Simulation. Iterative Methods.

AB This paper is concerned to discuss a single one-endogenous-variable linear model with rational expectations, in which there is the possibility of both regular and irregular behaviour, discussed in previous papers. In such models the asymptotic standard errors of the estimated coefficients depend on whether the rational expectations of the endogenous variables are generated by known stochastic processes, or these stochastic process parameters have to be estimated. In the latter case the parameters can be estimated separately for the exogenous variables stochastic process, or the parameters of the exogenous variables stochastic process can be estimated simultaneously with the parameters of the equations determining the endogenous variables. Relying on the standard properties of maximum likelihood estimation, the latter estimates would be expected to be generally more efficient than the former. This paper considers the relative asymptotic efficiency of these different estimators by computing this for various single models, and then compares it with the finite sample relative efficiencies by using Monte Carlo simulation. In this paper only regular models are studied.

PD March 1986. TI Practical Considerations When Solving Nonlinear Rational Expectations Models. AA Econometrics Project, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.63; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 32. PR No Charge. JE 211, 213. KW Extended Path Method. Rational Expectations. Iterative Methods.

AB In their recent paper Fair and Taylor describe a solution and estimation method for nonlinear Rational Expectations models. The solution method ('Extended Path' (EP) method) pointed out is computationally costly, Figure 1 describes the solution method and the notation that is followed here. The present note provides some extensions to the basic method which will partly remedy this problem, and presents extensions which show the basic method adaptable to a variety of approaches.

Maskin, E.

TI Nash and Perfect Equilibria of Discounted Repeated Games. AU Fudenberg, D.; Maskin, E.

Matzkin, Rosa L.

PD April 1987. TI Semiparametric Estimation of Monotonic and Concave Utility Functions: The Discrete Choice Case. AA Yale University Cowles Foundation For Research in Economics, Yale University. SR Yale Cowles Foundation Discussion Paper: 830; Cowles Foundation for Research in Economics, Yale University, Box 2125 Yale Station, New Haven, CT 06520. PG 40. PR No Charge. JE 211, 212, 022. KW Discrete Choice Models. Nonparametric Estimation. Utility Functions. Consistency. Semiparametric Estimation. AB This paper develops a semiparametric method for estimating the nonrandom part $V(\cdot)$ of a random utility

function $U(v, \omega) = V(v) + e(\omega)$ from data on discrete choice behavior. Here v and ω are, respectively, vectors of observable and unobservable attributes of an alternative, and $e(\omega)$ is the random part of the utility for that alternative. The method is semiparametric because it assumes that the distribution of the random parts is known up to a finite-dimensional parameter θ , while not requiring specification of a parametric form for $V(\cdot)$. The nonstochastic part $V(\cdot)$ of the utility function $U(\cdot)$ is assumed to be Lipschitzian and to possess a set of properties, typically assumed for utility functions. The estimator of the pair (V, θ) is shown to be strongly consistent.

McCulloch, Rachel

PD May 1987. TI International Competition in Services. AA University of Wisconsin. SR National Bureau of Economic Research Working Paper: 2235; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 420, 421, 422, 423, 635, 431, 432. KW Service Industries. International Competitiveness. General Agreement on Tariffs and Trade. Uruguay Round. Trade Negotiations. Deindustrialisation. Nontariff Barriers. GATT.

AB Production of services now dominates economic activity in the United States and most other nations. It is thus natural to find increasing attention on the part of United States policymakers to international competition in service activities. Yielding to strong pressure from the United States, members of the General Agreement on Tariffs and Trade (GATT) agreed in September 1986 to include services in the new "Uruguay Round" of multilateral trade negotiations. But there remains widespread skepticism regarding the prospects for these negotiations. This paper surveys the main issues and evidence relating to United States international competition in services. It reviews the forces that have catapulted services to the top of the agenda for the new GATT round; the conceptual issues raised by international competition in services; the growing importance of services in United States production and in international transactions; the relationship of services growth to "deindustrialisation" of the United States economy; the nature and motivation of barriers to international competition in services and their relationship to nontariff distortions of merchandise trade; and the choices awaiting United States officials in forthcoming bilateral and multilateral negotiations.

Meade, Ellen E.

PD May 1987. TI The Effect of Multilateral Trade Clearinghouses on the Demand for International Reserves. 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: 310; Division of International Finance Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 35. PR No Charge. JE 421, 423, 431, 432, 325. KW Trade. Payments Union. Reserves. Latin America. Central Banks. External Debt.

AB This paper attempts to capture the portfolio

incentives for central bank participation in a multilateral trade clearinghouse and to discuss the relation of those incentives to the volume of trade. Clearinghouses for the netting of multilateral intra-regional trade have existed since the 1950s, but no work to date has attempted to explore the incentive effects of such arrangements. Instead previous work, primarily empirical, has focused on the tendency of preferential arrangements (clearing as well as favorable protectionist policies) between nations to encourage trade flows between them. This paper advances the notion that the effects of clearing arrangements must be modelled as a portfolio choice problem, in order to ascertain the precise influence of clearing alone. The model developed here describes the choice of the central bank between holding reserve balances and investing in productive assets. For a given distribution of net export receipts and a given cash management policy of the central bank, expected daily demand for international reserves is derived. This demand is re-derived to illustrate the effects of a clearinghouse; in addition, reserve demand is augmented to account for debt payments to external creditors. Regardless of whether the central bank makes external debt payments, the clearing arrangement reduces the demand for reserves to finance trade. It is possible, were the "freed" reserves invested in development of the export industry, that the clearing arrangement could translate into an increased volume of trade. If the country is burdened with external debt payments however, it is possible that the "freed" reserves would simply be used to increase payments to external creditors.

Meerschwan, David M.

TI "Locomotive" and Other Channels of Transmission Under Flexible Exchange Rates. AU Braga, de Macedo Jorge; Meerschwan, David M.

Meese, Richard

TI Are Exchange Rates Excessively Variable?
AU Frankel, Jeffrey A.; Meese, Richard.

TI Are Exchange Rates Excessively Variable?
AU Frankel, Jeffrey A.; Meese, Richard.

Meghir, Costas

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

TI Labour Supply and Hours Constraints.
AU Arellano, Manuel; Meghir, Costas.

Melitz, Jacques

PD April 1987. TI Monetary Discipline, Germany, and the European Monetary System. AA INSEE. SR Centre for Economic Policy Research Discussion Paper: 178; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 42. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 432, 431, 311, 122, 023. KW European Monetary System. Monetary Discipline. Inflation. Germany. Monetary Policy.

AB This paper explores the hypothesis that the non-German members of the European Monetary System (EMS) draw benefits from the system because of the monetary discipline that it imposes upon them. The

hypothesis explains the dominant position of Germany in the EMS and is consistent with the evidence that membership has induced several countries to disinflate more than they would have done otherwise. Analysis shows, however, that the required conditions for the hypothesis to work are very stringent. Even if the conditions are met, the non-German members could obtain the advantages of monetary discipline in other ways.

Melnick, A.

PD May 1987. TI Loan Commitments and Monetary Policy. AU Melnick, A.; Sofianos, G.; Wachtel, P. AA Graduate School of Business Administration, New York University. SR New York University Salomon Brothers Center Working Paper: 418; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 32. PR \$3.00. JE 312, 315, 311, 521, 212. KW Bank Loans. Interest Rates. Credit Rationing. Causality. VAR. Vector Autoregression.

AB About three-quarters of all bank loans to business in the United States are made under loan commitment agreements. Under these agreements, banks promise to provide borrowers with funds, up to a ceiling, any time when the need arises, during the term of the agreement. If and when the commitment is used the borrower pays an interest rate that is usually related to market rates at the time. In this paper we examine the impact of these commitments on the way in which changes in monetary policy affect the economy. In particular, we examine the empirical relevance of quantity credit rationing in the transmission mechanism of monetary policy. A loan commitment, at least in the short run, insulates borrowers from the possibility of being quantity rationed. So, if indeed such rationing is important we should find that a tightening of monetary policy has a different effect on loans under commitment than on other business loans. If this turns out to be the case, the important implication is that loan commitments by making quantity rationing largely irrelevant, force monetary policy to work only through interest rate changes. To the extent the interest rate channel is less reliable than the quantity rationing channel, the effectiveness of monetary policy will be reduced. So the main hypothesis we will be testing is whether a change in monetary policy has a different effect on loans under commitment than on other business loans. To test this hypothesis we disaggregate bank loans into loans under commitment and loans not under commitment and we do causality tests using vector autoregressions.

Melvin, John

TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John.

Mergen, Francois

TI Forestry Research: A Provisional Global Inventory. AU Evenson, Robert E.; Mergen, Francois; Judd, M. A.; Putnam, J.

Merrick, John J.

PD April 1987. TI Price Discovery in the Stock Market. AA Federal Reserve Bank of Philadelphia and New York University. SR New York University Salomon Brothers Center Working Paper: 416; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 13. PR \$3.00. JE 313. KW Cash Stock Market. Stock Index Futures Market. Asset Values. Stock Prices. Information.

AB This paper examines the evolution of the relative price discovery roles of the New York Stock Exchange cash stock market and the S and P 500 stock index futures market over the 1982-1986 period. In the early years, we find that the cash market maintained price discovery supremacy. However, we document a significant shift towards price discovery dominance by the index futures market by 1985. The timing of this reversal in price discovery dominance corresponds with the eclipse of the cash market by futures market trading in dollar volume terms.

Michel, Philippe

TI How Should Control Theory be Used by a Time-Consistent Government? AU Cohen, Daniel; Michel, Philippe.

TI The Two Critiques of Econometric Policy Evaluation. AU Cohen, Daniel; Michel, Philippe.

Micklewright, John

TI Modelling Energy Demand and Household Welfare Using Micro-Data. AU Baker, Paul; Blundell, Richard; Micklewright, John.

Milgrom, Paul

PD May 1987. TI Employment Contracts, Influence Activities and Efficient Organization Design. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8741; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley 94720. PG 40. PR \$3.50. JE 511, 026, 053, 821. KW Rent Seeking. Influence. Transaction Costs. Organization. Incentives. Labor. Decision Making.

AB When changing jobs is costly, efficient employment contracts rarely compensate workers fully for the effects of post-hiring events and decisions. If there are executives and managers with authority to make discretionary decisions that other employees care about, those other employees will be led to waste valuable time attempting to influence decisions. Efficient organization design counters this tendency by limiting the discretion of decision-makers, especially for those decisions with large distributional consequences but little importance to the organization.

PD June 1987. TI Adverse Selection Without Hidden Information. AA Yale University and University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8742; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley 94720. PG 25. PR \$3.50. JE 026, 025. KW Adverse Selection. Hidden Information. Free Rider Problem. Hidden Action. Incentives. Motivation.

AB The usual distinction between "hidden action" and "hidden information" problems is criticized. The criticism is founded partly on purely logical grounds, partly on a review showing how the received literature can be better understood when the usual distinction is suppressed, and partly on the development of new static and dynamic models of adverse selection without hidden information.

Miller, Preston J.

PD April 1987. **TI** The Quantitative Significance of the Lucas Critique. **AU** Miller, Preston J.; Roberds, William. **AA** Research Department, Federal Reserve Bank of Minneapolis. **SR** Federal Reserve Bank of Minneapolis Staff Report: 109; Federal Reserve Bank of Minneapolis, 250 Marquette Avenue, Minneapolis, MN 55480. **PG** 67. **PR** No Charge. **JE** 131, 132, 212. **KW** Lucas Critique. Conditional Forecasts. Vector Autoregressions. **VAR**. Bayesian Models. Prediction Errors.

AB Doan, Litterman, and Sims (DLS) have suggested using conditional forecasts to do policy analysis with vector autoregression (VAR) models. Their method seems to violate the Lucas critique, which implies that coefficients of a VAR model will change when there is a change in policy rules. In this paper we construct a VAR macro model and attempt to determine whether the Lucas critique is important quantitatively. We find evidence of significant coefficient instability following two candidate policy changes, and we find the DLS method only marginally improves forecast accuracy over arbitrary periods, even when the future path of policy is known with certainty.

Miller, Robert A.

TI Household Choices in Equilibrium. **AU** Altug, Sumru; Miller, Robert A.

Mintz, Jack M.

PD May 1987. **TI** Alternative Views of the Corporate Tax: A Reassessment of the Carter Report Twenty Years Later. **AA** Department of Economics, Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 683; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 56. **PR** \$3.00 Canada; \$3.50 United States and Foreign. **JE** 323. **KW** Corporate Taxation. Canada. Taxes. Tax Base. Dividends.

AB Corporate tax reform in Canada is considered in relation to the recommendations made by the Carter Report twenty years ago. The Carter recommendations on corporate taxation and integration is contrasted to the existing tax system and alternative corporate tax bases. The view taken is that reform aimed at broadening the corporate tax base, so that equity income is withheld, is only appropriate under special circumstances. A tax on rents or dividends may be superior.

Mishal, Shaul

TI Israel and the PLO: A Game with Differential Information. **AU** Schmeidler, David; Mishal, Shaul; Sened, Itai.

Mitchell, Bridger M.

PD February 1987. **TI** The Health Care Costs of Skin Cancer Caused by Ultraviolet Radiation. **AU** Mitchell, Bridger M.; Vernon, James R. **AA** The Rand Corporation. **SR** Rand Note: N-2538-EPA; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 61. **PR** No Charge. **JE** 913, 722. **KW** Cancer. Disease. Medical Care. Environmental Impact. Pollution. Ozone.

AB This Note assesses the potential health care costs of treating skin cancer that could result from increases in ultraviolet radiation (UV). It reviews the medical and epidemiological findings on the causes and natural history of the three major types of skin cancer, their modes of treatment, and their expected outcomes. These findings are organized in the form of probability trees of alternative outcomes, and provide inputs to a prototype computer model of the costs of treatment. The model illustrates the quantitative effects of hypothesized increases in UV levels on the incidence and direct cost of treating skin cancer.

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

Mitchell, Janet

PD April 1987. **TI** Credit Rationing, Budget Softness, and Salaries in Yugoslav Firms. **AA** University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8716; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 48. **PR** No Charge. **JE** 022, 052, 124, 121, 611, 511. **KW** Labor Management. Credit Rationing. Budget Constraint. Property Rights. Yugoslavia. Self-Managed Firms.

AB Self-managed firms are noted for the ability of workers to make decisions such as the setting of salaries and the choice of investments. This paper analyzes the short-run salary, investment, and investment finance decisions of a self-managed firm facing constraints such as credit rationing, upper limits on salaries, and social ownership of capital. These constraints create a discontinuous cost-of-capital schedule that favors firms with large amounts of retained earnings. While credit rationing and salary constraints offset a preference for credit finance, lax enforcement of an enterprise budget constraint strengthens it.

Mizon, Grayham E.

TI Efficient Estimation Using Panel Data. **AU** Breusch, Trevor S.; Mizon, Grayham E.; Schmidt, Peter.

Montgomery, Mark R.

PD July 1986. **TI** Female First Marriage In East and Southeast Asia: A Kiefer-Neumann Model. **AA** Princeton University. **SR** Yale Economic Growth Center Discussion Paper: 510; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 43. **PR** \$2.00. **JE** 841, 121, 821, 212. **KW** Asia. Korea. Indonesia. Malaysia. Marriage Market. Search Theory. Reservation Function.

AB Although many studies of households in developing

countries have identified wife's education and the education (or permanent income) of the husband as important determinants of behavior, there is surprisingly little known about the way these characteristics come to be associated with each other in the marriage market. This paper uses the theory of search to investigate marriage markets in Korea, Indonesia, and Malaysia. The aim is to estimate an empirical model of search in which a woman's education is treated as an exogenous variable and her age at first marriage and the education of the husband are jointly determined, endogenous variables. The maximum likelihood model proposed by Kiefer and Neumann for labor market search problems is applied. The estimates suggest that female education increases both the reservation and offer levels, with the effect on reservation levels dominant. Thus, better-educated women tend to marry later and to marry men with better education. The behavior of the reservation function with the age of the woman is less clear. Kiefer-Neumann estimates, which rely on a restrictive assumption about offer frequency, show a decline in reservation levels with age. The Flinn-Heckman diagnostic test does not support that finding. Better estimates of the reservation function will have to await data on marriage offer frequencies.

Moore, Geoffrey H.

PD January 1987. TI The Service Industries and the Business Cycle. AA Columbia Business School. SR Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-87-09; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. PG 14. PR \$5.00 academics and non-profit institutions; \$6.00 corporations (add \$1.00 outside United States, Canada and Puerto Rico). JE 131, 635. KW Business Cycles. Service Sector. Employment Growth.

AB Concentrating upon the behavior of employment in the service industries, we find that the growth of employment in this sector has contributed more to total job growth in the current four-year-old recovery than in previous long recoveries. The trend suggests that in future recessions the declines in employment will tend to be smaller. Service industries growth has also helped to make recessions shorter and expansions longer. To keep track of these trends we need to develop leading, coincident and lagging indicators for the service industries, using growth rates to expose the cyclical movements.

Moreno, Connie Malcolm

TI An Annotated Bibliography of Sources of Mexican Immigration. AU Valdes, R. Burciaga McCarthy Kevin F.; Moreno, Connie Malcolm.

Morris, Cynthia Taft

TI A Latent Variable Regression Model of Nineteenth Century Economic Development. AU Adelman, Irma; Lohmoller, Jan Bernd; Morris, Cynthia Taft.

Moulin, Herve J.

PD April 1987. TI Can Everyone Benefit From Growth? Three Difficulties. AU Moulin, Herve J.; Thomson, William. AA Moulin: Virginia Polytechnic Institute and State University. Thomson: University of

Rochester. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E87-06-03; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. PG 10. PR Free by request. JE 022, 025, 111. KW Resource Monotonicity. Individual Rationality. Envy-Freeness.

AB When the resources available to a fixed population grow, is it possible to guarantee that all agents benefit? If final consumptions are determined by operating the price mechanism from equal division the answer is: not necessarily. The possibility that some agents be hurt is closely related to the "throw away" paradox, studied by Aumann and Peleg (1974), and the "immiserizing growth" paradox, discussed by Bhagwati (1958). We ask whether this undesirable phenomenon can be avoided by any mechanism. A mechanism is Resource Monotonic (RM) if the utility of no agent ever decreases when the aggregate endowment increases. We show that any Pareto Optimal (PO) and RM mechanism may violate two basic properties frequently imposed in normative analyses of the problem of fair allocation (see Thomson and Varian, 1985, for a review of this literature). The first one is Individual Rationality from Equal Division (IR): every agent should be guaranteed the utility he would reach by consuming the n -th share of the resources, where n is the number of agents. The second property is that the mechanism select envy-free allocations (EF): no agent should prefer another agent's consumption to his own. Even a much weaker axiom than EF, requiring that no agent should receive more of every good than any other agent, proves incompatible with PO plus RM. The proofs of these results are by way of examples. The examples are far from pathological: they involve two goods, and two agents with convex and homothetic preferences.

PD June 1987. TI Common Property Resources: Can Everyone Benefit From Growth? AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E87-06-04; Working Paper Coordinator, Department of Economics, Sandy Hall, Blacksburg, VA 24061. PG 53. PR Free by request. JE 025, 026, 022. KW Surplus-Sharing. Resource Monotonicity. Welfare Egalitarianism.

AB Our goal in this paper is methodological. We propose an abstract model where the compatibility of the RM axiom, the IR axiom, and Pareto Optimality can be systematically explored. This model encompasses all three examples above, and more. It consists of a surplus-sharing problem (an ordinal version of axiomatic bargaining) where both the feasible set and the vector of secure utility levels (disagreement point) depend upon a common parameter λ (interpreted as the common property resource). The set of parameters is ordered in such a way that when λ increases, the set of feasible (cooperative) utility vectors expands, and also the secure utility level of each agent rises. Thus when λ increases cooperative opportunities are better but at the same time the individual rationality constraint is tighter. Does it exist, then, a solution of each surplus-sharing problem (Pareto optimal and individually rational) that is increasing with respect to the parameter λ ? From the mathematical standpoint, this question is far from simple. We propose some necessary, as well as some

sufficient conditions for existence. The latter require, however, that the variation of the feasible set w.r.t. the resource parameter satisfies additional lattice theoretical assumptions. Applying those results to the three examples described above unifies several earlier results on Resource Monotonicity and provides many new insights. Thus, at the cost of a higher level of abstraction we uncover deep structural similarities between micro-economic models as different as - say - the Cake Division problem and collusion in a quantity setting oligopoly.

Nabli, Mustapha

TI The Wholesale Produce Market of Tunis and its Porters: A Tale of Market Degeneration. AU Azabou, Mongi; Kuran, Timur; Nabli, Mustapha.

Nalebuff, Barry

PD March 1987. TI Brinkmanship and Nuclear Deterrence: The Neutrality of Escalation. AA Department of Economics, Princeton University. SR Princeton Woodrow Wilson School Discussion Paper in Economics: 125; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. PG 18. PR No Charge. JE 114, 026. KW Brinkmanship. Escalation. Nuclear Deterrence. Superpowers. Conflict. War.

AB The theory of brinkmanship helps us understand the world of nuclear deterrence. Neither of the superpowers is able to punish the other with impunity. Hence, for nuclear deterrence to be credible, there must exist the possibility for any conflict to escalate out of control. Nuclear deterrence is not based on a certainty but rather a probability of mutual destruction. This paper develops a stylized model of brinkmanship to capture the effects of threats that leave something to chance. The main result of the mathematical model is that the risk of inadvertent escalation is independent of position, posture, command, control, and technology: the danger of nuclear escalation cannot be reduced by changing the rules of conflict.

Nation, Joseph

PD December 1986. TI Force Stand-Down and Crisis Termination. AA The Rand Corporation. SR Rand Paper: P-7292-RGS; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 36. PR No Charge. JE 114. KW Political Crisis. Nuclear War. Soviet Union. Disarmament.

AB This paper reviews the standing down of alerted nuclear forces in a terminating crisis and discusses objectives of and suggestions for decisionmakers during the stand-down phase. It examines potential stand-down measures, U.S. capabilities to detect Soviet noncompliance, Soviet incentives to attack, and calculates resulting warhead levels under varying scenarios. The author suggests that the likelihood of undetected Soviet noncompliance is low, that its potential costs vary, and that strategic nuclear force stand-down appears largely militarily insignificant, although it may have significant political effects.

Neale, Adrian J.

TI Monte Carlo Experimentation Using PC-Naive. AU Hendry, David F.; Neale, Adrian J.

Nelson, Charles R.

PD May 1987. TI Implicit Estimates of Natural, Trend, and Cyclical Components of Real GNP. AA University of Washington. SR National Bureau of Economic Research Working Paper: 2253; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 131, 132, 212, 221. KW Business Cycles. Trends. Gross National Product. Macro Models. Full Employment Level.

AB Estimates of the natural or full employment level of real Gross National Product have usually been obtained by statistical detrending procedures which assume independence between trend and cycle. This paper presents an alternative approach which says that the natural level should be measured in the context of a macro model. If the quantity equation holds with money exogenous and if the price level is sticky, then observed real GNP will reflect both nominal shocks, which are observed, and real shocks, which are unobserved shifts in the natural level. The path of the natural level is then implicit in the data given the model. Calculated paths of the natural level of United States real GNP and the resulting business cycle are presented.

Neu, C. R.

PD December 1986. TI Prospective Payment for Medicare Posthospital Services: Some Empirical Considerations. AU Neu, C. R.; Harrison, Scott. AA The Rand Corporation. SR Rand Report: R-3435-HCFA; The Rand Corporation, 1700 Main Street P.O. Box 2138, Santa Monica CA 90406-2138. PG 84. PR No Charge. JE 913, 918. KW Medicare. Hospital Services. Nursing Homes. Prospective Payment System. Rehabilitation. Health Care.

AB Since the implementation of the prospective payment system (PPS) for Medicare hospital services, attention has turned to extending the principle of prospective payment to posthospital care provided by skilled nursing facilities and home health agencies. The aim behind this extension of the prospective payment system is to provide a financial incentive for the efficient management of an entire episode of patient care—hospital and posthospital. Whether an extended PPS is feasible and whether it would provide the hoped-for benefits can be assessed only through a demonstration of the proposed system. This report details some preliminary analyses of existing data needed to refine the design of the demonstration, to set payment rates for the demonstration, and to make sure that neither a demonstration nor a fully implemented extended PPS will expose beneficiaries or providers to unacceptable risks. An earlier RAND report, R-3335, describes in detail how an extended PPS would operate and how a demonstration would be structured.

TI Setting Medicare Capitation Rates for the Frail and Elderly. AU Mann, Joyce; Neu, C. R.

Newbery, David M.

PD April 1987. TI Road User Charges in Britain. AA Churchill College, Cambridge University. SR Centre for Economic Policy Research Discussion Paper: 174; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 31. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00)

companies, libraries, institutions. JE 615, 931. KW Road User Charges. Congestion Costs. Highway Cost Allocation. Externalities. Transport Taxation. Automobiles. Motor Vehicles.

AB At present the Department of Transport allocates road use costs according to concepts of fair attribution, and road user charges for commercial vehicles are intended to cover these costs. The paper calculates the efficient road user charge - the marginal social cost of highway use - and compares these figures with the cost allocation results. Recent research suggests that the efficient road damage charge is only about 40 percent of the total damage, but that congestion costs may more than compensate for this shortfall. This is confirmed for the United Kingdom, where the efficient charge for cars is shown to be higher than their allocated cost, but for heavy goods vehicles is about the same. Accident costs may substantially raise these figures.

Newell, Andrew

PD June 1987. TI Mid 1980s Unemployment. AU Newell, Andrew; Symons, James S. V. AA Newell: University of Sussex and Centre for Labour Economics, London School of Economics. Symons: University College London and Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 283; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 96. PR No Charge. JE 813, 812, 820, 122, 311. KW Unemployment. OECD. Labor Force. Wages. Workers.

AB The paper reviews the rise in OECD unemployment. It describes the unemployed and their experience of unemployment; the composition of the labour force; and the structure of employment. A number of analyses of the rise in unemployment are discussed and compared and a synthesis of views is offered.

Newell, Marie Louise

TI Pay Differences Between Men and Women: Longitudinal Evidence from the 1946 Birth Cohort. AU Joshi, Heather; Newell, Marie Louise.

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

TI Pay Differences Between Men and Women: Longitudinal Evidence from the 1946 Birth Cohort. AU Joshi, Heather; Newell, Marie Louise.

Newman, Peter

PD April 1987. TI Sraffa and Imperfect Competition. AU Newman, Peter; Vassilakis, Spyros. AA Newman: Department of Political Economy, Johns Hopkins University. Vassilakis: University of Pittsburgh. SR Johns Hopkins Department of Political Economy Working Paper: 188; Department of Political Economy, Johns Hopkins University, Baltimore, MD 21218. PG 20. PR No Charge. JE 031, 611, 021, 022. KW Sraffa. Imperfect Competition.

AB In (1925-8) and (1926) Sraffa made an important contribution to the theory of imperfect competition,

mainly by showing how limited is the domain of applicability of perfect competition, and by breaking the spell, so to say, of the perfectly elastic demand curve that faces the perfect competitor. Of course, the latter had already been done by Cournot in 1838, but -- perhaps misled by Marshall -- no one took any notice. Unlike the case with the unlucky Cournot, the spirit of the times was with Sraffa and has continued so. His fine article of 1926 has always received a full (perhaps even over-full) share of attention, if not of understanding.

Nickell, Stephen

TI Turnover in U.K. Manufacturing. AU Burgess, Simon M.; Nickell, Stephen.

PD June 1987. TI Wages, Prices, Unemployment and Output in U.K. Industry. AU Nickell, Stephen; Kong, Paul. AA Institute of Economics and Statistics, Oxford. SR Oxford Applied Economics Discussion Paper: 29; Institute of Economics and Statistics, Saint Cross Building, Manor Road, Oxford OX1 3UL, ENGLAND. PG 45. PR No Charge. JE 824, 611. KW Insiders. Wages. Industry Studies. U.K.

AB The paper presents a complete model of an imperfectly competitive industry in the presence of general wage setting behaviour, with an application to a variety of industries in the U.K. In particular, it focusses on the extent of "insider" forces in wage setting and the employment effects of technical change.

Nugent, Jeffrey B.

TI Contractual Choice in Tunisian Fishing. AU Azabou, Mongi; Bouzaine, Lotfi; Nugent, Jeffrey B.

Ofer, Aharon R.

TI Seasonalities in Security Returns: The Case of Earnings Announcements. AU Chari, V. V.; Jagannathan, Ravi; Ofer, Aharon R.

Ordovery, Janusz A.

TI Predation, Monopolization and Antitrust. AU Saloner, Garth; Ordovery, Janusz A.

Oswald, Andrew J.

PD June 1987. TI Efficient Contracts are on the Labour Demand Curve: Theory and Facts. AA Centre for Labour Economics, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 284; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 44. PR No Charge. JE 821, 831, 832. KW Unions. Seniority System. Wages. Collective Bargaining. Labor Contracts.

AB The paper develops a seniority model of union behaviour which attempts to resolve a number of long-standing puzzles in the literature. The model predicts that (i) efficient contracts will lie on the labour demand curve, (ii) there will be negotiations over pay but not employment, (iii) unions will have no direct interest in the elasticity of labour demand, (iv) in certain circumstances there will be extreme wage rigidity, (v) exceptional recessions will produce concession bargaining, and (vi)

there will be no 'shrinking union' problem. It is also shown that the introduction of layoffs by seniority into implicit contract theory eliminates its famous wage rigidity theorem. The paper discusses the form of real labour contracts, documents the extent of lay-offs by seniority, and reports the results of a small survey of the largest British and United States trade unions.

TI Profit Related Pay: Prose Discovered?
 AU Blanchflower, David G.; Oswald, Andrew J.

Ozler, Sule

PD May 1987. TI Border Enforcement Versus Internal Enforcement: A Study in the Economics of Illegal Migration. AU Ozler, Sule; Waldman, Michael. AA University of California at Los Angeles. SR University of California at Los Angeles Department of Economics Working Paper: 443; Department of Economics, University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024. PG 28. PR \$2.50; checks payable to University of California Regents. JE 823, 841, 916. KW Illegal Migration. Border Enforcement. Internal Enforcement. Immigration. Illegal Aliens.

AB This paper focuses on a comparison of the two basic methods through which the government can attempt to control the flow of illegal migrants: border enforcement and internal enforcement. In particular, in the context of a multi-period setting, we demonstrate that internal enforcement has a number of advantages over border enforcement which would not be captured in a static analysis. The conclusion is that the recent move by the United States Government towards a policy which relies more heavily on internal enforcement may well be justified for a number of reasons not previously recognized.

Pagano, Marco

PD December 1986. TI Endogenous Market Thinness and Stock Price Volatility. AA Via Catullo 64, 80122 Napoli, Italy. SR Centre for Economic Policy Research Discussion Paper: 146; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 36. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 313, 311, 026, 022, 122. KW Stock Price Volatility. Stock Market Size. Italy. Thin Financial Markets. Transaction Costs. Multiple Equilibria. Government Intervention.

AB Thin equity markets cannot accommodate temporary bulges of buy or sell orders without large price movements: the resulting volatility can induce risk-averse transactors who face transaction costs to desert these markets altogether. Thus thinness and the consequent price volatility may become joint self-perpetuating features of an equity market, whatever the volatility of asset fundamentals. If, however, appropriate incentive schemes are adopted to encourage entry of additional investors, this vicious circle can be broken, eventually shifting the market to a self-sustaining, superior equilibrium, characterized by a higher number of transactors, lower price volatility and larger supply of the asset.

PD December 1986. TI Market Size, The Informational Content of Stock Prices and Risk: A

Multiasset Model and Some Evidence. AA Via Catullo 64, 80122 Napoli, Italy. SR Centre for Economic Policy Research Discussion Paper: 144; 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 313, 026, 122. KW Market Thinness. Informational Content. Italy. Stock Prices. Stock Returns. Unsystematic Risk. Transaction Costs. Stock Market. Market Depth.

AB Market thinness can be an important determinant of the riskiness of stock returns, because it reduces the reliability of stock prices as predictors of future dividends. This paper analyses the relationship between market size and risk as the outcome of rational expectations equilibrium in a multiasset model with transaction costs, and shows that: (i) the conditional and measured variance of stock returns should be higher for thin issues *ceteris paribus*, and (ii) this thinness-variability relationship should arise only from the unsystematic component of the variance. These predictions are tested on data from the Milan Stock Exchange and appear to be supported by the evidence.

PD December 1986. TI Trading Volume and Asset Liquidity. AA Via Catullo 64, 80122 Napoli, Italy. SR Centre for Economic Policy Research Discussion Paper: 142; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 30. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 313, 311, 020. KW Asset Markets. Trading Volume. Market Thinness. Liquidity. Multiple Equilibria. Rational Expectations. Externalities. Market Entry Decisions.

AB The existence of a centralized market does not in itself guarantee that an asset can be readily liquidated at no loss: if the market is not deep enough, traders will experience adverse changes in the market price in response to their transactions. Market depth, however, is a function of the entry decisions of all potential traders. Each trader will therefore judge the absorptive capacity of the market on the basis of his conjectures about the behaviour of the others. This creates an externality, and as often happens in situations where externalities are at work, multiple (rational expectations) equilibria are possible. The nature of the equilibrium which results depends on the initial conjectures that each trader forms about the choices of the others. If conjectures are "pessimistic", for instance, a market may remain trapped at an inefficient equilibrium, characterized by low trading volume and low liquidity.

Page, Talbot

PD March 1987. TI Pivot Mechanisms in Probability Revelation. AA California Institute of Technology and Brown University. SR Caltech Social Science Working Paper: 596; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 31. PR No Charge. JE 026, 025. KW Bayesian Games. Pivot Mechanisms. Proper Scoring Rules. Groves Mechanisms. Kth Price Auctions. Fixed Point.

AB The Groves mechanism and kth price auctions are well-known examples of pivot mechanisms. In this paper an analogous pivot mechanism is defined for probability

revelation and then the Bayesian equilibria are characterized for the three pivot mechanisms. The main result is that in Bayesian games with these pivot mechanisms, equilibria must satisfy a simple fixed point condition. The result does not require signal ordering properties and thus generalizes and simplifies results by Milgrom and others. When the fixed point is unique there is "no regret." The result also holds for games less structured than Bayesian games (where the common knowledge and consistency assumptions are relaxed). The pivot mechanism in probability revelation is shown to generalize and characterize proper scoring rules. The characterization yields an optimization of research incentives for proper scoring rules and suggests that under some conditions the new mechanisms, which are pivot mechanisms but not proper scoring rules, outperform proper scoring rules.

Park, Daekuen

PD May 1987. TI Capital Controls and the Timing of Exchange Regime Collapse. AU Park, Daekuen; Sachs, Jeffrey. AA Department of Economics, Harvard University. SR National Bureau of Economic Research Working Paper: 2250; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 431, 432, 023, 313, 322. KW Balance of Payments Crises. Capital Controls. Fiscal Deficits.

AB This paper investigates the nature of balance of payments crises in regimes with capital controls. It extends earlier work on capital controls by assuming that households manage their consumption and asset portfolios to maximise intertemporal utility. Our main result is that capital controls are effective in delaying, but not preventing, a breakdown of a fixed exchange rate regime in the presence of money-financed fiscal deficits.

Park, Rolla Edward

PD March 1987. TI Optimal Peak-Load Pricing for Local Telephone Calls. AU Park, Rolla Edward; Mitchell, Bridger M. 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 41. PR No Charge. JE 613, 612, 635. KW Telecommunication. Communication. Time-of-Day Pricing. Flat-Rate Pricing. Peak-Load Pricing.

AB This report shows how to find optimal time-of-day measured-rate prices for local telephone calls. We use 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. This is the first application of peak-load pricing theory to recognize 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. This variation sharply limits the efficiency gains that price rationing can achieve, because feasible prices are inevitably too high during some hours when more calls could be served at no incremental cost, and too low during others when serving more calls requires large expenditures

to increase capacity. We find that, contrary to conventional wisdom, measured-rate pricing of local telephone calls is likely to be somewhat 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.

Parke, William

TI The Operations of the Bank of England 1890-1908: A Dynamic Probit Approach. AU Davutyan, Nurhan; Parke, William; Pippenger, John.

TI Likelihood and other Approaches to Prediction in Dynamic Models. AU Cooley, Thomas F.; Parke, William R.

Parker, Michael

TI The Effects of Taxes and Benefits on UK Unemployment: A Microeconomic Analysis. AU Beenstock, Michael; Parker, Michael.

Pascal, Anthony

PD February 1987. TI The Qualifications of Teachers in American High Schools. AA The Rand Corporation. SR Rand Note: N-2547-CSTP; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 43. PR No Charge. JE 912. KW Education Economics. High School Education. Quality of Education. Teaching. Education Policy.

AB This Note describes the formal qualifications of the teachers currently teaching in America's public high schools and attempts to determine whether those qualifications vary appreciably among schools with different characteristics. The analysis was performed on data collected in the 1984 High School and Beyond (HSB) surveys of school administrators and teachers conducted by the National Opinion Research Center for the United States Department of Education. Despite complaints about the low level of formal qualifications of the nation's high school faculties, the HSB data indicate an impressive level of formal qualifications across ten different high school subjects. The conventional wisdom holds that schools in rural areas and in the South, and schools with largely minority or low-income student bodies have the least-qualified teachers. According to the HSB data, however, the disadvantages for nonmetropolitan and Southern schools were slight. The ethnic status of the student body also had little relation to the level of formal qualifications of the teachers. These results provide little justification for massive new policy interventions to upgrade the formal qualifications of teachers or to redistribute teachers across schools.

Pauls, B. Dianne

PD April 1987. TI A Reassessment of Measures of the Dollar's Effective Exchange Value. AU Pauls, B. Dianne; Helkie, William L. AA International Finance Division, Federal Reserve Board. SR Board of Governors of the Federal Reserve System International Finance Discussion Paper: 306; International Finance Division Board of Governors of the Federal Reserve System, Washington, D.C. 20551. PG 50. PR No Charge. JE 431, 411, 421. KW Exchange Rates.

Empirical Trade Models. Relative Prices. Exchange Rate Indexes. Dollar. Depreciation. Trade Balance.

AB Recent attention has focused on measures of the dollar's effective exchange rate amid disappointment by some observers with the response of the United States trade balance to the depreciation of the dollar since February 1985. In particular, these observers suggest that the traditional indexes, which include only currencies of industrial countries, overstate the dollar's decline because it has depreciated much less against the currencies of some key newly industrialized trading partners. This paper begins with a description of the uses of effective exchange-rate indexes and describes theoretically the choice of an index, which varies with the application. Although the inclusion of currencies of developing countries in an index may be useful for analysing trade developments, it is not appropriate for some other purposes, such as providing information for monetary conditions. The latter part of the paper focuses on measures of exchange rates suitable for analysing trade flows and domestic inflation and compares their performance in the context of the equations used by the Federal Reserve Board staff to forecast trade components and price deflators for exports and imports. The results suggest that the addition of the currencies of important developing-country trading partners in an index of exchange rates improves its performance in forecasting export volume and import prices but makes little difference for the forecasts of export prices.

Peaucelle, Irina

PD December 1986. **TI** Croissance Economique, Profit et Formes de Motivations Salariales: (I) a propos de quelques etudes comparatives de l'ecole radicale americaine. **AU** Peaucelle, Irina; Petit, Pascal. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8703; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 46. **PR** 20 **FF**. **JE** 824, 825, 833, 226, 123, 111. **KW** Wages. Profit. Incentives.

AB The institutions, which organize wage formation and industrial relations, mediate conflicts of interest between wage and profit earners. Shifts in such intermediations are sometimes presented as responsible for the profit slowdown and for the stagnation of the economy. These shifts are also viewed as consequences of the blockage in economic growth. This paper attempts to make precise these issues in formalizing the institutional setting of wage formation and industrial relations. Following related works by Bowles, Gordon and chiefly Weisskopf, a formalization has been done and tested on the 1950-1980 experiences of eight industrialized countries. The results hint at an explanation combining effects of class-conflicts and class-harmony to account partly for the profit slowdown. But a share of the shift seems also to stem from an external change in the way the world economy operates. (in French).

Perloff, Jeffrey M.

TI The Dynamic Annihilation of a Rational Competitive Fringe by a Low-Cost Dominant Firm. **AU** Berck, Peter; Perloff, Jeffrey M.

PD January 1986. **TI** Union and Demographic Wage, Hours and Earnings Differentials in the Agricultural Labor Market. **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: 387; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 30. **PR** \$6.00. **JE** 824, 826, 831, 821, 813, 711. **KW** Wages. Agricultural Labor Market. Unions. Farm Workers.

AB This study's simultaneous structural equation model of wages and hours in the agricultural hired labor market produces four key results. First, the labor supply curve is virtually vertical, with a slight upward slope. Second, wages rise significantly with the number of hours worked per week. Third, currently there are no demographic wage differentials, though there were large union differentials in the 1970s. Fourth, there are some large demographic hours differentials which lead to large earnings differentials. Wage and income differentials between various demographic groups of farmers and agricultural workers and between workers in agriculture and workers in other industries are cited as justification for various government programs (such as price supports, payment-in-kind, marketing orders, welfare, minimum wage laws, and labor relations acts). Yet little has been known about how wages, hours, and earnings differ across agricultural workers of various demographic and union status characteristics. Unlike most previous research on hired agricultural workers, this study is based on a random sample of individual workers and calculates wage, hours, and earnings differentials adjusting for variations in education, experience, and other personal characteristics. Special attention is paid to union and other demographic differences among workers.

Pesaran, Bahram

TI The Bias of Forecasts from a First-Order Autoregression. **AU** Magnus, Jan R.; Pesaran, Bahram.

Pestieau, Pierre

TI Tax-Transfer Policies and the Voluntary Provision of Public Goods. **AU** Boadway, Robin W.; Pestieau, Pierre; Wildasin, David A.

Peters, H. Elizabeth

PD December 1986. **TI** Interactions Between Divorce and Its Long-term Economic Consequences. **AA** University of Colorado. Economics Research Center/NORC. **SR** Economics Research Center/NORC Discussion Paper: 87-4; Economics Research Center/NORC, 1155 E. 60th Street, Chicago, IL 60637. **PG** 26. **PR** \$2.00; Send requests to Librarian, Economics Research Center. **JE** 841, 921, 914. **KW** Family. Marriage. Children. Divorce Decision. Alimony. Child Support.

AB This paper studies the link between the expected consequences or income prospects at divorce and the decision to become divorced. The economic model that is utilized predicts that divorce will occur when the present value of opportunities after divorce exceeds the return to continuing the marriage. These opportunities, measured over time, include the economic value attached to a possible remarriage, as well as income from employment, welfare, alimony, and child support payments. The empirical analysis utilizes data from the Young Women's

cohort of the National Longitudinal Surveys of Labor Market Experience. Preliminary results show that income gains expected from continuing the marriage reduce the probability of divorce, but income prospects expected at divorce have no significant effect on the probability of divorce for these women.

Peters, Wolfgang

PD January 1987. TI Die Optimalen Entscheidungen der Rentenversicherungsnehmer in Einem Lebenszyklusmodell. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-98; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 55. PR No Charge. JE 022. KW Life Cycle Model. Optimal Decisions. Pension Scheme. AB (in German.).

PD April 1987. TI Rentenversicherung in einem overlapping generations Modell. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-91; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 31. PR No Charge. JE 023. KW Pension Scheme. Overlapping Generations. Optimal Decisions. Optimal Pension. AB (In German).

PD May 1987. TI Komparative Dynamik in einem Lebenszyklusmodell mit Rentenversicherung. AA University of Bonn. SR Universität Bonn Sonderforschungsbereich 303 - Discussion Paper: A-114; Sonderforschungsbereich 303 an der Universität Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 21. PR No Charge. JE 023. KW Lifecycle Model. Optimal Decision. Consumption Leisure. Pension Scheme. Comparative Dynamics. Macroeconomics. AB (In German).

Petit, Pascal

TI Croissance Economique, Profit et Formes de Motivations Salariales: (I) a propos de quelques etudes comparatives de l'ecole radicale americaine. AU Peaucelle, Irina; Petit, Pascal.

Piga, Francesco

PD February 1987. TI The Italian Stock Markets and its Regulation. AA The National Commission on Companies and the Stock Exchanges of Italy. SR New York University Salomon Brothers Center Working Paper: 410; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. PG 27. PR \$3.00. JE 313, 613. KW Stock Market. Italy. Capital Markets. Securities Regulation.

AB In Italy the shares of the companies listed on the stock exchange are transacted on ten stock exchanges. A significant amount of transactions, however, are made off the exchanges. The stock exchanges do not have a legal personality, but are public markets regulated by specific laws. These laws are an old provision of 1913 and a more recent law (N.216) issued in 1974 and afterwards modified. The CONSOB (National Commission for Companies and

the Stock Exchanges) is the regulatory body which controls the stock exchanges and the listed companies.

Pippenger, John

TI The Operations of the Bank of England 1890-1908: A Dynamic Probit Approach. AU Davutyany, Nurhan; Parke, William; Pippenger, John.

Pissarides, Christopher A.

PD June 1987. TI Real Wages and Unemployment in Australia. AA Centre for Labour Economic, London School of Economics. SR London School of Economics Centre for Labour Economics Discussion Paper: 286; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 39. PR No Charge. JE 821, 822, 824, 132. KW Unemployment. Wages. Incomes Policy. Australia. Labor Market. Taxes.

AB This paper estimates a three-equation model of the Australian labour market, for employment, real wages and the participation rate. It then applies the model to two questions of topical interest, the role of incomes policies in containing real wage growth and the reasons behind the rise and fall in unemployment since the late 1960s. It finds that contrary to common belief in Australia, incomes policies have not been important in controlling real wages. It also finds that the rise in unemployment in the 1970s, was due to two related government policies: the rise in tax rates of all kinds and the rise in the ratio of unemployment benefits to wages. In the 1980s the changes in unemployment were connected with changes in the behaviour investment and in the level of aggregate demand.

Pitt, Mark M.

TI Microeconomic Models of Rationing, Imperfect Markets, and Non-Negativity of Constraints. AU Lee, Lung Fei; Pitt, Mark M.

Plant, Mark W.

PD May 1987. TI On the Accuracy and Cost of Numerical Integration in Several Variables. AU Plant, Mark W.; Quandt, Richard E. AA Plant: University of California Los Angeles. Quandt: Princeton University. SR Princeton Industrial Relations Section Working Paper: 220; Department of Economics, Princeton University, Princeton, NJ 08544. PG 39. PR \$2.00. JE 213, 214. KW Numerical Methods. Algorithms. Vector Computation. Computer.

AB The paper examines seven methods of numerical integration, including both special purpose algorithms designed for the multivariate normal density and general algorithms such as Gauss-Legendre and Newton-Cotes methods. With the aid of some five functions, the accuracy of these methods and their computational cost are compared in matched experiments on an IBM 370/3081 Model K and a 2-pipe CYBER 205. The effect of vectorised computation is also examined.

TI On the Accuracy and Cost of Numerical Integration in Several Variables. AU Quandt, Richard E.; Plant, Mark W.

Plosser, Charles I.

TI Nominal Surprises, Real Factors and Propagation Mechanisms. AU King, Robert G.; Plosser, Charles I.

TI Production, Growth and Business Cycles. AU King, Robert G.; Plosser, Charles I.

TI Sectoral vs. Aggregate Shocks in the Business Cycle. AU Long, Jr John B.; Plosser, Charles I.

Plott, Charles R.

PD April 30, 1987. TI Inflation and Expectations in Experimental Markets. AU Plott, Charles R.; Daniels, Brian P. AA California Institute of Technology. SR Caltech Social Science Working Paper: 634; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 21 pp. PR No Charge. JE 011, 022, 023, 132, 134. KW Experiment. Forecast. Inflation. Expectations. Rational Expectations.

AB A total of nine experimental markets were studied. Seven of these involved eleven to twelve periods of inflation at a constant percentage and then two or three periods of no inflation. Two experiments involved no inflation for twelve periods and then inflation at a constant rate for three periods. In all but three markets, participants were asked to guess the mean price of the upcoming market period before they had any information about the parameters for that period. The subject with the best guess was given a financial reward in addition to any profit earned in the market. Convergence properties are compared. Rational expectations models are tested and the structure of forecasts are studied. In general the rational expectations models capture much of what is observed but paradoxes exist in the data and in the application of the models.

Press, S. James

PD August 1986. TI Empirical Bayes Estimation of the Mean in a Multivariate Normal Distribution. AU Press, S. James; Rolph, John E. AA The Rand Corporation. SR Rand Note: N-2517-HSS/RC; The Rand Corporation, 1700 Main Street, Post Office Box 2138, Santa Monica, CA 90406-2138. PG 28. PR No Charge. JE 211. KW Prior Distributions. Patterned Structures. Hyperparameter Estimation. James-Stein-Like Estimators. Maximum Likelihood Estimation. Loss Function.

AB This Note, 1986, considers the problem of estimating the mean vector of a multivariate normal distribution under a variety of assumed structures among the parameters of the sampling and prior distributions. The authors use a pragmatic approach. They adopt prior distributional families, assess hyperparameters, and adopt patterned mean and covariance structures when it is relatively simple to do so; alternatively, they use the sample data to estimate hyperparameters of prior distributions when assessment is a formidable task (e.g., when assessing parameters of multidimensional problems). James-Stein-like estimators result. In some cases, the authors have been able to show that the estimators proposed uniformly dominate the maximum likelihood estimators when measured with respect to quadratic loss functions.

Promel, H. J.

PD January 1987. TI A Short Proof of the Restricted Ramsey Theorem for Finite Set Systems. AU Promel, H. J.; Voigt, B. AA Promel: University of Bonn. Voigt: University of Bielefeld. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86449-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 9. PR No Charge. JE 213. KW Ramsey Classes of Set Systems. Finite Set Systems. Ramsey Theorem.

AB We give a short proof of the Restricted Ramsey Theorem for Finite Set Systems due to J. Nešetřil and V. Rödl 'Ramsey classes of set systems, J. Combin. Theory Ser. A. 34, 1983, 183-201.

Pudney, Stephen E.

PD December 1984. TI The Distance Function and Stochastic Specification in Models of Discrete Choice. AA Department of Economics, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.55; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 26 pages. PR No Charge. JE 211. KW Limited Dependent Variables. Qualitative Variables. Survey Data.

AB A great many problems in microeconomics involve choice between a finite number of discrete alternatives, rather than the choice of a value for a continuously-variable control. Examples include choice of transport mode, the demand for indivisible goods, entry into alternative professions, labour force participation and many other applications. With the increasing availability of suitable survey data and increasing interest in microeconomic policy issues, econometricians have lately devoted a large amount of research effort to the study of such problems. Nevertheless, one can detect in the literature a widespread dissatisfaction with the models available to the applied econometrician in this field, and there appears to be considerable scope for the development of new models of discrete choice. My aim in this paper is to suggest a new class of models based on the distance function of consumer theory (see Deaton (1979)), which avoid some of the difficulties associated with conventional discrete choice techniques.

PD 1985. TI Frequency of Purchase and Engel Curve Estimation. AA Department of Economics, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.56; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 37 Pages. PR No Charge. JE 022, 212, 211. KW Demand Analysis. Cross-Section. Consumption Behavior. P-Tobit Technique. Expenditure Survey Data. Consumer Theory.

AB A major difficulty in applied cross-section demand analysis lies in the fact that observed data usually come from short-duration expenditure surveys, while the economic theory of the consumer runs in terms of long-term average rates of consumption. The relationship between these two is not simple: if a family is not observed to purchase a particular good in the survey period, it may

nevertheless be a consumer of that good on average in the longer run; moreover, even if a purchase is observed, the underlying rate of consumption is not necessarily equal to the observed purchase rate, particularly for goods with a storage life greater than the length of the survey period. This difficulty has been well known to practitioners since the earliest work in the field, but there has so far been no convincing theoretical framework for the analysis of consumption behaviour from short-duration expenditure data. It is the aim of this paper to propose, and to examine the estimation problems associated with, some specific econometric models which provide such a framework.

Pulleyblank, W. R.

TI A Network Penalty Method. AU Gamble, A. B.; Conn, A. R.; Pulleyblank, W. R.

Putnam, J.

TI Forestry Research: A Provisional Global Inventory. AU Evenson, Robert E.; Mergen, Francois; Judd, M. A.; Putnam, J.

Quandt, Richard E.

TI On the Accuracy and Cost of Numerical Integration in Several Variables. AU Plant, Mark W.; Quandt, Richard E.

PD May 1987. TI On the Accuracy and Cost of Numerical Integration in Several Variables. AU Quandt, Richard E.; Plant, Mark W. AA Quandt: Princeton University. Plant: Princeton University and University of California, Los Angeles. SR Princeton Financial Research Center Memorandum: 75; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. PG 47. PR \$3.00. JE 211, 213. KW Numerical Integration. Latent Variable Models. Algorithms. Calculation. Computers.

AB The paper examines seven methods of numerical integration, including both special purpose algorithms designed for the multivariate normal density and general algorithms such as Gauss-Legendre and Newton-Cotes methods. With the aid of some five functions, the accuracy of these methods and their computational cost are compared in matched experiments on an IBM 370/3081 Model K and a 2-pipe CYBER 205. The effect of vectorised computation is also examined.

Quirnbach, Herman C.

PD July 1986. TI Comparative Statics for Oligopoly: Demand Shift Effects. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8634; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 15. PR No Charge. JE 611, 022. KW Comparative Statics. Oligopoly. Imperfect Competition. Conjectural Variations. Demand Curve.

AB When a demand curve shifts in an imperfectly competitive industry, price, quantity, consumer surplus, and welfare may individually rise or fall. This breadth of possibilities contrasts sharply with the narrower and more predictable effects of either a demand shift in a competitive

industry or a cost shift in either type of industry. Even under imperfect competition, however, the pattern of demand shift effects cannot be entirely arbitrary. A system of necessary and sufficient relationships among the changes is established. How profits change when demand shifts is of particular note. When the demand curve rises, profits may actually fall. As shown here, this possibility is unique to imperfect competition: profits always rise with demand under both perfect competition and perfect collusion. The demand shift case again also contrasts with the cost shift case, where imperfect competition is not a necessary ingredient in generating perverse profit effects.

Raisian, John

PD June 1987. TI The Structure and Short-Run Adaptability of Labor Markets in Japan and the United States. AU Raisian, John; Hashimoto, Masanori. AA Raisian: Senior Fellow, Hoover Institution. Masanori: Ohio State University. SR Stanford Hoover Institute Working Paper in Economics: E-87-23; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 69. PR No Charge. JE 824, 821, 122. KW Labor Market Adjustments. Cross-Country Comparisons. Job Stability. Wages. Unemployment. Lifetime Employment. Human Capital. Japan. United States.

AB Economic growth rates have been higher in Japan during the last three decades than in the United States, while unemployment rates have been significantly lower throughout the same period. Japanese labor markets are often described as having unique institutional features, such as lifetime employment practices, bonus payments, and cooperative work environments, that are at least partially responsible for these desirable conditions. In this paper, we highlight the differential structures of employment and compensation between the two countries. More importantly, we argue that an important clue for understanding the differences in economic performance between the countries is contained in the way employment, hours of work, and worker compensation vary with short-run demand disturbances, and proceed to document the empirical regularities that are observed. Our empirical findings indicate that United States employers rely on quantity adjustments (i.e., employment and hours of work) to a greater degree than Japanese employers as a primary means of adjusting to changing demand conditions, whereas procyclical hourly compensation adjustments are much more prevalent in Japan than in the United States. We interpret these findings within a firm-specific human capital accumulation framework; the results are suggestive of greater investments taking place among Japanese labor market participants compared to their United States counterparts. The challenge that remains for future investigation, assuming our conjecture has merit, is to determine why these investments might be higher in Japan.

Ranis, Gustav

PD December 1986. TI The Role of Institutions In Transition Growth: The East Asian NIC's. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 524; Economic Growth Center, Yale

University, Box 1987 Yale Station, New Haven, CT 06520. PG 29. PR \$2.00. JE 121, 112, 111, 045. KW NICs. Asia. Development. Institutions. Secularism. Egalitarianism. Nationalism.

AB This paper examines the role of institutions in the transition process of the East Asian "Gang of Four." The stylized facts characterising modern growth are discussed, along with the transition phases to modern growth. The importance of institutional structure to the sequencing of transitional subphases is explored. The institutional structure itself is seen to depend on the particular nature of secularism, egalitarianism and nationalism as defined by Kuznets in each country concerned. Contrasts in colonial history and initial endowments are also considered. The evolution of institutions accommodating successful transition in East Asia are explored.

PD February 1987. TI Towards A Model of Development For the Natural Resources Poor Economy. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 529; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PR \$2.00. JE 112, 111, 721, 121. KW Resource Endowment. Economic Growth. Development. Elites. LDCs. Income Distribution. Interest Groups. Politicisation.

AB Differences in the speed and success of developing countries in achieving transition to modern economic growth can be explained by differences in the natural resource endowments of these countries. A fundamental hypothesis of this paper is that major policy instruments (such as the interest rate, the foreign exchange rate, monetary expansion, the wage rate, the rate of protection, etc.) are political instruments for promoting growth by transferring income among social groups. The politicisation of these policy instruments becomes deeply entrenched when the presence of rich natural resources provides incentives for the pursuit of unproductive and/or inefficient rent-seeking activities (as in the Latin American experience). In the absence of a rich natural resource endowment, the necessity of depoliticizing the economic system becomes paramount to ensure sustained economic growth. This leads to a gradual but consistent adherence to liberalization in the credit, product, and foreign exchange markets (as in the Taiwan case). The economic agenda becomes one of fully developing and harnessing the country's human resources instead of protecting and vesting certain elites with rents fueled by the exploitation of a rich natural resource base.

Ransom, Roger L.

PD December 1986. TI Tontine Insurance and the Armstrong Investigation: A Case of Stifled Innovation in the American Life Insurance Industry, 1868-1905. AU Ransom, Roger L.; Sutch, Richard. AA University of California, Berkeley. SR University of California at Berkeley Working Paper in Economics: 8619; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. PG 32. PR \$3.50. JE 042, 613. KW Tontine Insurance. Deferred Dividend Insurance. Life Insurance. Regulation. Life-Cycle Saving. Old Age Saving Plan. Corruption.

AB Tontine insurance, introduced in 1868, combined the features of life insurance with an unusual type of old-age

saving plan. A portion of the annual premium was held in an accumulating fund that was divided among the surviving policyholders after twenty years. By 1905, two thirds of all insurance in force was of this type. Despite this success, further sales of tontine policies were prohibited in 1906 after the Armstrong Committee Investigation blamed the tontine business for corruption, extravagance, and other ills of the industry. We argue that tontine insurance was an actuarially-sound and attractive investment and that prohibition was probably unnecessary.

Rausser, Gordon C.

PD April 1987. TI Alternative Strategies for Trade Policy Reform. AU Rausser, Gordon C.; Wright, Brian D. 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: 441; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 54. PR \$10.80. JE 420, 411, 431, 713. KW Trade Policy Reform. Agricultural Policy. Multilateral Negotiations. GATT. Tokyo Round. Producer Incentive Equivalent. European Community.

AB In the past, opportunities for international agricultural reform have been squandered in ad hoc solutions overly responsive to the shortsighted concerns of domestic producers. Bad agreements will come back to haunt us. Merely removing those waivers and other licenses to violate the spirit of GATT that have been obtained in past negotiations would be a major achievement of great overall benefit to the United States. At the least, we must avoid adding a new set of distortions that will make future reform even more difficult. Instead of repeating past mistakes, we can learn from them in responding to the promising developments arising from the current distress. In this paper we first focus on the magnitude of global distortions in agriculture to justify the view that the problem is indeed serious. We consider current institutions for reforming world agriculture, in particular GATT, in the context of the strategies that have been advanced by various individual countries for agricultural trade policy reform. Then we offer some suggestions for operationalizing coordinated reform of internal and external agricultural policies. The concept of Producer Incentive Equivalent (PIE) is proposed as a means of measuring current market distortions and coordinating multilateral market liberalization. We also sketch the type of compensation scheme that would advance the cause of liberalization without introducing additional distortions of its own.

Raymon, Neil

TI A Monetarist Model of Inflation. AU LeRoy, Stephen; Raymon, Neil.

Razin, Assaf

TI Testing Ricardian Neutrality with an Intertemporal Stochastic Model. AU Leiderman, Leonardo; Razin, Assaf.

TI Testing Ricardian Neutrality with an Intertemporal Stochastic Model. AU Leiderman, Leonardo; Razin,

Assaf.

Reboussin, David

TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John.

Reifschneider, David

TI The Forecasting Accuracy of Auto Assembly Schedules. AU Krane, Spencer; Reifschneider, David.

Reinelt, G.

TI Experiments in Quadratic 0-1 Programming. AU Barahona, F.; Junger, M.; Reinelt, G.

Rey, P.

TI A Note on Vertical Restraints with Provision of Distribution Services. AU Caillaud, B.; Rey, P.

Richardson, J. David

TI Real-Financial Linkages Among Open Economies. AU Arndt, Sven W.; Richardson, J. David.

Robb, Richard

TI Alternative Methods for Solving the Problem of Selection Bias in Evaluating the Impact of Treatments on Outcomes. AU Heckman, James J.; Robb, Richard.

Roberds, William

TI The Quantitative Significance of the Lucas Critique. AU Miller, Preston J.; Roberds, William.

Roberts, Russell D.

TI Why Comply: Enforcing the Minimum Wage and Other Price Control Laws. AU Lott, Jr John R.; Roberts, Russell D.

Robinson, Peter M.

PD 1985. TI Nonparametric Methods in Specification. AA Department of Economics, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.54; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 15 Pages. PR No Charge. JE 211. KW Smoothing. Nonparametric Estimation. Heteroskedasticity. Serial Correlation. Probability Density Function.

AB We describe a role for smoothed nonparametric estimation of probability densities and regressions in the specification of parametric models. The discussion assumes that a parametric function for the conditional expectation of a dependent variable has been correctly specified. The nonparametric methods are then used to detect patterns of heteroscedasticity and (possibly nonlinear) serial correlation in the residuals, as well as to determine the form of the probability density and score functions. It is hoped that relatively efficient rules for parametric inference will thereby be suggested, though the extent to which this hope is likely to be fulfilled depends critically on the

amount of data available, and the care with which the nonparametric methods are employed and interpreted.

PD 1985. TI On the Consistency and Finite-Sample Properties of Nonparametric Kernel Time Series Regression, Autoregression and Density Estimators. AA Department of Economics, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.52; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 15. PR No Charge. JE 211. KW Time Series. Kernel Estimators. Density Estimators. Nonparametric Regression. Autoregression. Mixing Conditions. Convergence. Serial Dependence. Gaussian Processes. Finite-Sample Properties. Bandwidth.

AB Kernel estimators of conditional expectations and joint probability densities are studied in the context of a vector-valued stationary time series. Weak consistency is established under minimal moment conditions and under a hierarchy of weak dependence and bandwidth conditions. Prompted by these conditions, some finite-sample theory explores the effect of serial dependence on variability of estimators, and its implications for choice of bandwidth.

PD 1986. TI Time Series Residuals With Application to Probability Density Estimation. AA Department of Economics, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: R.5; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 27. PR No Charge. JE 211. KW Time Series Residuals. Time Series Models. Non-Gaussian Time Series. Density Estimation. Kernel Estimator. Uniform Convergence. Deconvolution. Fast Fourier Transform. Circulant.

AB A linear stationary and invertible process $y(t)$ models the second-order properties of T observations on a discrete time series, up to finitely many unknown parameters θ . Two estimators of the residuals or innovations $e(t)$ of $y(t)$ are presented, based on a θ estimator which is square root- T consistent with respect to a wide class of $e(t)$ distributions, such as a Gaussian estimator. One sets unobserved $y(t)$ equal to their mean, the other treats $y(t)$ as a circulant and may be best computed via two passes of the fast Fourier transform. The convergence of both estimators to $e(t)$ is investigated. We apply the estimated $e(t)$ to estimate the probability density function of $e(t)$. Kernel density estimators are shown to converge uniformly in probability to the true density. A new sub-class of linear time series models is motivated.

PD 1986. TI Estimation of Disequilibrium and Limited Dependent Variable Models with Serially Dependent Residuals. AA Department of Economics, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: R.4; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 10. PR No Charge. JE 211. KW Disequilibrium Models. Serial Dependence. Limited Dependent Variables.

AB We correct formulae of Sapra (1986) and present an approach to the estimation of disequilibrium models in the presence of serially dependent residuals that has several

advantages and can be applied also to limited dependent variable and other models.

PD 1986. TI Asymptotically Efficient Estimation in the Presence of Heteroskedasticity of Unknown Form. **AA** Department of Economics, London School of Economics. **SR** London School of Economics Econometrics Programme Discussion Paper: R.3; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 35. **PR** No Charge. **JE** 211. **KW** Heteroskedasticity. Nearest Neighbor Regression. Adaptive Estimation. Asymptotic Efficiency. Nonparametric Regression. Weighted Least Squares.

AB In a multiple regression model the residual variance is an unknown function of the explanatory variables, and estimated by nearest neighbour nonparametric regression. The resulting weighted least squares estimator of the regression coefficients is shown to be adaptive, in the sense of having the same asymptotic distribution, to first order, as estimators based on knowledge of the actual variance function or a finite parameterisation of it. A similar result was established by Carroll (1982), using kernel estimation and under substantially more restrictive conditions on the data generating process than ours. Extensions to various other models seem to be possible.

PD 1986. TI On the Errors-in-Variables Problem for Time Series. **AA** Department of Economics, London School of Economics. **SR** London School of Economics Econometrics Programme Discussion Paper: R.2; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 14 Pages. **PR** No Charge. **JE** 211. **KW** Errors-in-variables. Frequency Domain Regression. Tapers. Seasonality. Trend. Measurement Errors. Spectral Analysis. Band Spectrum Regression.

AB The usual assumption in the classical errors-in-variables problem of independent measurement errors cannot necessarily be maintained when the data are time series; errors may be strongly serially correlated, possibly containing seasonal effects and trends. When it is possible to identify frequency bands over which the signal-to-noise ratio is large, an approximate solution to the errors-in-variables problem is to omit the remaining frequencies from a time series regression. We draw attention to the danger of "leakage" from the omitted frequencies, and show that the consequent bias can be reduced by means of tapering.

PD 1986. TI Nonparametric Estimation From Time Series Residuals. **AA** Department of Economics, London School of Economics. **SR** London School of Economics Econometrics Programme Discussion Paper: R.1; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 9 Pages. **PR** No Charge. **JE** 211, 213. **KW** Time Series Models. Autoregressive Model. Central Limit Theorem. Score Function. AR Model. Yule-Walker Estimation.

AB Nonparametric estimation of the distribution of the innovations ϵ_t in a stationary autoregression is considered. Kernel estimators of the probability density of the ϵ_t and its derivatives are obtained from estimated residuals following Yule-Walker estimation of

the autoregressive coefficients. An operational central limit theorem for these estimators is established. An estimator of the score function for the ϵ_t is also given, along with an operational central limit theorem.

PD 1987. TI Using Gaussian Estimators Robustly. **AA** Department of Economics, London School of Economics. **SR** London School of Economics Econometrics Programme Discussion Paper: R.6; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 14. **PR** No Charge. **JE** 211. **KW** Robust Estimation. Asymptotic Covariance Matrix Normality. Latent Variables.

AB To form standard errors of Gaussian estimators, or to use them as the basis for interval estimators or test statistics, their asymptotic covariance matrix (ACM) must be consistently estimated. For parameters affecting only the first conditional moments, such as regression coefficients or parameters explaining serial correlation in standard linear or nonlinear regression parameterisations or in standard parameterisations of time series models for regularly spaced data, the formula for the ACM of the Gaussian MLE may be used even if the data are not actually Gaussian, because this formula depends only on second moments whose form is invariant to the presence or absence of Gaussianity. However, care is needed when inferences are desired on parameters describing second moments, or both first and second moments simultaneously, unless Gaussianity is assumed, because the relevant components of the ACM depend on third and fourth conditional moments, and these only assume the "Gaussian" form when the third and fourth conditional cumulants are zero. Although Gaussianity is not a necessary condition, many quite plausible distributional shapes, such as non-symmetric and long-tailed distributions contravene this condition on the cumulants. In consequence use of the formula for the ACM of the Gaussian MLE leads to inconsistent estimation of the actual ACM, inconsistent interval estimators, and test statistics for which the usual chi-squared distribution is not a valid approximation to the actual null distribution. Structures in which the variances and covariances of latent or observable variables are not merely nuisance parameters but of interest in themselves include random effects models for cross-sectional, panel or time series data. Structures involving parameters which simultaneously influence both first and second conditional moments include linear simultaneous equations systems with covariance restrictions, certain errors-in-variables models, regression models in which the variance is a function of the mean, and time series models for irregularly-spaced data.

Robinson, Sherman

PD April 1987. **TI** Modelling Structural Adjustment in the U.S. Economy: Macroeconomics in a Social Accounting Framework. **AU** Robinson, Sherman; Roland, Holst David W. **AA** Robinson: Department of Agricultural and Resource Economics, University of California, Berkeley. **Roland-Holst:** Economics Department, Mills College. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 440; 207 Giannini Hall, University of California, Berkeley, CA 94720.

PG 50. PR \$10.00. JE 023, 132, 222, 213. KW Macroeconomic Models. Social Accounting. United States Economy. Multiplier Decomposition. Structural Adjustment. Input-Output Analysis.

AB In this paper, we describe an economywide modeling framework based on a Social Accounting Matrix that has been used in developing countries to explore the interactions between macro policy and structural adjustment. Using multiplier analysis, we illustrate how this framework can capture the essential structural features of the economy and sort out the direct and indirect links through which macro shocks affect the system. We present a new multiplier decomposition methodology that measures the importance of these links and apply it to United States data. We also present a methodology for analysing structural adjustment and apply it to United States data for the 1982-1985 period.

TI Macroeconomic Adjustment and Income Distribution: Alternative Models Applied to Two Economies. AU Adelman, Irma; Robinson, Sherman.

Roe, Terry L.

PD April 1987. TI Agricultural Policy in Developing Countries: the Transfer of Resources from Agriculture. AA Department of Agricultural and Applied Economics, University of Minnesota. SR University of Minnesota Economic Development Center Bulletin: 87-4; Department of Agricultural and Applied Economics, 352 Classroom Office Building, University of Minnesota, Saint Paul, MN 55108. PG 36p. PR free. JE 713, 121, 112. KW Agriculture. Agricultural Policy. Developing Countries. LDCs. Agricultural Investment.

AB This paper focuses on interventions by governments of developing countries that tend to distort economic incentives and, in particular, to transfer resources from agriculture. Generally, as agriculture is modernized and an economy develops, labor is transferred out of agriculture. Parallel to this transfer is the need for capital deepening in agriculture in the form of investments in land and human capital and the adoption of chemical, biological and mechanical technology that saves on the use of the sector's most scarce resources. Since markets work imperfectly in the provision of new agricultural technology, rural infrastructure, education and other services that permit markets to function efficiently, government programs and projects to remedy these imperfections are often socially profitable. Hence, there is a need and an important role for government to play in the development process.

Roemer, John E.

PD May 27, 1987. TI A Challenge to Neo-Lockeanism. AA University of California at Davis. SR University of California at Davis Economics Department Working Paper: 292; Department of Economics, University of California at Davis, Davis CA 95616. PG 20. PR No Charge. JE 024, 026, 025, 053. KW Public Ownership. Property Rights. Capitalist Inequality. Allocation Mechanisms. Income Distribution.

AB Neo-Lockean justifications of capitalist inequality are based upon two premises: that in the state of nature people owned their own labor, and that the external world was unowned and up for grabs for private appropriation,

subject to certain provisos. The usual attacks on this argument challenge the self-ownership premise. In this paper, the assumption that the external world was unowned is challenged instead, and replaced with the assumption that it was publicly owned by all. A model is presented which answers the question: What allocation mechanisms respect public ownership of the land and private ownership of labor? Income distribution under these mechanisms is shown to be much more equal than distributions associated with capitalism.

Roland, Holst David W.

TI Modelling Structural Adjustment in the U.S. Economy: Macroeconomics in a Social Accounting Framework. AU Robinson, Sherman; Roland, Holst David W.

Rolph, John E.

TI Empirical Bayes Estimation of the Mean in a Multivariate Normal Distribution. AU Press, S. James; Rolph, John E.

Rosen, Harvey S.

PD May 1987. TI The Marriage Tax is Down But Not Out. AA Princeton University. SR National Bureau of Economic Research Working Paper: 2231; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 323, 914, 921. KW Tax Reform Act. Income Taxes. Family. Children. Marriage Tax. Tax Simulation.

AB The public debate surrounding the Tax Reform Act of 1986 has paid little attention to the tax consequences of being married. Specifically, there has been virtually no discussion of the possible existence of an implicit "marriage tax" -- the increase in the joint income tax liability of a man and woman when they marry. This lack of concern appears to be due to the perception that the new law has lowered marginal tax rates to such an extent that the magnitudes of marriage taxes (and subsidies) are inconsequential. In this paper, I show that to the contrary, the new law creates large taxes on being married for some couples, and large subsidies for others. On the basis of a tax simulation model, I estimate that in 1988, 40 percent of all couples will pay an annual average marriage tax of about \$1100, and 53 percent will receive an average subsidy of about \$600. One striking result that emerges from the analysis is the relatively large marriage tax that will be borne by some low income couples with children. For such couples, the marriage tax can amount to 10 percent of joint gross income. Hence, the new tax law appears to quite "anti-family" for some low income workers.

Rosenzweig, Mark R.

PD September 1986. TI The Stability of Household Production Technology: A Replication. AU Rosenzweig, Mark R.; Schultz, Paul T. AA Rosenzweig: University of Minnesota. Shults: Yale University. SR Yale Economic Growth Center Discussion Paper: 511; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 14. PR \$2.00. JE 841, 921, 913. KW Household Production Technology. Children.

Birth. Birthweight. Health.

AB This paper reestimates underlying parameters of household production technology that are thought to constrain the choices of couples that influence the birthweight of their children, a proxy for child survival and health. Replication of such fundamental parameters from United States surveys of legitimate live births in 1987-89 and 1980 confirms the stability of this technology and also reveals the marked changes in demand for certain health inputs, such as smoking where the knowledge of the input's health effect has increased and appears to have diffused across women differentially by their education. While progress is reported in identifying the technical parameters of the production function for birthweight, the more difficult task of identifying and estimating the parameters describing agent's preferences remains to be accomplished.

PD November 1986. **TI** Who Receives Medical Care? Income, Implicit Prices and the Distribution of Medical Services Among Pregnant Women In the United States. **AU** Rosensweig, Mark R.; Schultz, Paul T. **AA** Rosensweig: University of Minnesota. Schultz: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 522; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 38. **PR** \$2.00. **JE** 913. **KW** Health Care. Medicine. Pregnancy. Medical Services. Babies. Prenatal Care.

AB We examine in this paper how medical treatments are distributed among pregnant women in the United States in 1980, according to both their initial health and their economic resources. Different implicit pricing regimes for allocating medical services are modeled and their implications for the distribution of services elaborated. We found that (i) more-educated women and women with husbands having higher incomes receive a disproportionate share of the four major treatments studied; (ii) prenatal treatments are more likely to be provided to less-healthy infants (mothers) within schooling and income groups; and (iii) treatment differentials by education and income are increased by controlling for behavior that affects the pre-treatment healthiness of the infant. The results are consistent with the existence of a market regime for medical care that allocates health treatments to those who demand them, whether the demand is due to superior knowledge of the benefits of health, greater resources, or preferences. Mothers of healthier infants are more likely to postpone seeing a doctor, visit a doctor less often, and are less likely to receive treatments while pregnant. This compensatory allocation of medical services, combined with the inability of the researcher to measure directly all contributions to pre-treatment health, can lead to erroneous inferences concerning the efficacy of the treatments. Controlling for initial health status is shown to significantly change measures of the therapeutic benefits of medically-administered treatments in the United States health care system.

PD March 1987. **TI** Markets in Low Income Countries: Distortions, Mobility and Migration. **AA** Department of Economics, University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 87-5; Department of Economics, 1035 Management & Economics, University of Minnesota,

Minneapolis, MN 55455. **PG** 70. **PR** free. **JE** 823, 824, 821, 121, 112. **KW** Labor Markets. Low-Income Countries. LDCs. Employment. Workers. Wages. Wage Rigidity. Agricultural Labor.

AB This paper reviews the theoretical and empirical literature concerned with the pricing, employment, mobility and location of labor in low-income countries. Topics include behavioral theories of surplus labor, efficiency wages, labor supply and demand behavior in family enterprise models, agricultural dualism, intertemporal contractual arrangements involving labor and other factors of production; models of migration incorporating human capital, information and capital market constraints, risk and family behavior; urban wage diversity, urban dualism and social mobility. Models pertinent to these topics are reviewed both in terms of their ability to shed light on diverse phenomena and the consistency and their implications with empirical evidence.

PD April 1987. **TI** Fertility and Investments In Human Capital: Estimates of the Consequences Of Imperfect Fertility Control In Malaysia. **AU** Rosensweig, Mark R.; Schultz, T. Paul. **AA** Resenzweig: University of Minnesota. Schultz: Yale University. **SR** Yale Economic Growth Center Discussion Paper: 534; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 29. **PR** \$2.00. **JE** 841, 913, 121, 851. **KW** Fertility Rate. Malaysia. Birth. Contraception. Education. Children.

AB In this paper, we describe and use methods to estimate the consequences in Malaysia for children's schooling and birthweight of the exogenous variability in their parents' supply of births. Information on contraceptive techniques employed by couples is used to estimate the technology of reproduction. These estimates provide a means of disentangling the exogenous biological and demand factors that contribute to the variation in fertility across couples under a regime of imperfect (i.e. costly) fertility control. We find that imperfect fertility control significantly influences both the average schooling attainment and birthweight of children (an indicator of health) in Malaysia. Couples who have above-average propensities to conceive report higher levels of actual fertility, and their children exhibit significantly lower (actual and expected) schooling attainment and lower birthweight, on average, due to their shorter intervals between births.

Rotemberg, Julio J.

TI The Relative Rigidity of Monopoly Pricing. **AU** Saloner, Garth; Rotemberg, Julio J.

TI The Cyclical Behavior of Strategic Inventories. **AU** Saloner, Garth; Rotemberg, Julio J.

Rothwell, Geoffrey S.

TI Preparing for the Improbable: Safety Incentives and the Price-Anderson Act. **AU** Dubin, Jeffrey A.; Rothwell, Geoffrey S.

Roumasset, James

PD May 1986. **TI** Agency Costs and the Agricultural Firm. **AU** Roumasset, James; Uy, Marilou.

AA Roumasset: Yale University. Uy: The World Bank. SR Yale Economic Growth Center Discussion Paper: 501; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 31. PR \$2.00. JE 715, 716, 022. KW Share Tenancy. Agricultural Firms. Principal-Agent Theory. Farms. Tenure Choice. Sugarcane. Philippines. Contracts. Land Quality Specialization.

AB The form of institutions used to organize resources for production and distribution is an area which has received increased attention from economists in the last decade. Two theories have evolved which share the comparative institutions perspective first discussed by Coase (1937, 1960), the principal agency theory (a mathematical formulation of contractual choice) and the positive agency theory (a non-mathematical explanation of patterns of industrial organization). The theory of organisational form in agriculture has generally centered around tenure choice in which different tenancy arrangements are viewed as types of employment contracts. In this paper, an alternative model developed by Eswaran and Kotwal (1985) in which share tenancy is seen as a partnership between a landowner and a tenant is elucidated. Tenure choice is also investigated as part of a general study of the nature and causes of the agricultural firm. In order to do this, agricultural firms are first classified according to the degree of specialization. When this is done, a number of apparently diverse observations about tenure choice seem to fit a more general pattern; the higher the land productivity, the higher the degree of specialisation. A principal-agency framework is used to construct a theory of the relationship between the degree of separation between labor and management and land quality, and data from a sample of Philippine sugarcane farms are used to verify this hypothesis.

Rustichini, Aldo

PD April 21, 1987. TI Core-Walras Equivalence in Economies with a Continuum of Agents and Commodities. AU Rustichini, Aldo; Yannelis, Nicholas C. AA Rustichini: Department of Mathematics, University of Minnesota. Yannelis: Department of Economics, University of Minnesota. SR University of Minnesota Center for Economic Research Discussion Paper: 238; Center for Economic Research, 525 Science Classroom Bldg, University of Minnesota, Minneapolis, MN 55455. PG 40. PR No Charge. JE 021. KW Core Allocations. Walrasian Allocation. Extremely Desirable Commodity. Commodity Pair Desirability. Bochner Integral. Banach Lattice.

AB This paper contains the following results for economies with infinite dimensional commodity spaces. (i) We establish a core-Walras equivalence theorem for economies with an atomless measure space of agents and with an ordered separable Banach commodity space whose positive cone has a non-empty norm interior. This result includes as a special case the Aumann (1964) and Hildenbrand (1974) finite dimensional theorems. (ii) We provide a counterexample which shows that the above result fails in ordered Banach spaces whose positive cone has an empty interior even if preferences are strictly convex, monotone and weak continuous and initial endowments are strictly positive. (iii) After introducing a

new assumption on preferences called "commodity pair desirability," (which is automatically satisfied whenever preferences are monotone and the positive cone of the commodity space has a non-empty interior), we establish core-Walras equivalence in any arbitrary separable Banach lattice whose positive cone may have an empty (norm) interior. (iv) We provide a proof that in some concrete spaces whose positive cone may have an empty interior, the assumption of an extremely desirable commodity or uniform properness suffices for core-Walras equivalence. Finally, (v) we indicate how our methods can be used to obtain core-Walras equivalence results for the space $M(\Omega)$ of measures on a compact metric space.

Rutherford, Thomas F.

PD May 1987. TI Implementational Issues and Computational Performance Solving Applied General Equilibrium Models with SLCP. AA Cowles Foundation, Yale University. SR Yale Cowles Foundation Discussion Paper: 837; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 33. PR No Charge. JE 213, 021, 214. KW General Equilibrium Models. Algorithm. Numerical Modeling.

AB This paper reports on an implementation of Mathiesen's sequential method for solving applied general equilibrium models. In this approach, the underlying nonlinear complementarity problem is solved by successive linearization. The paper discusses model formulation, implementation and performance. Several test problems and empirical models are used to evaluate efficiency and robustness.

PD May 1987. TI A Modeling System for Applied General Equilibrium Analysis. AA Cowles Foundation, Yale University. SR Yale Cowles Foundation Discussion Paper: 836; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. PG 44. PR No Charge. JE 213, 214, 021. KW General Equilibrium. Numerical Modeling. Algorithm. Software.

AB Numerical modeling in the Arrow-Debreu framework has emerged as a consistent approach for economic analysis. A major disadvantage of the applied general equilibrium (AGE) framework has been the high degree of technical expertise required for formulating and solving these models. This paper describes a micro-computer system for AGE modeling. The system, named MPS/GE, combines an efficient solution algorithm with an interactive user-interface. Using MPS/GE, models containing up to 300 prices and activities can be formulated and solved on an IBM PC. This makes AGE modeling accessible to a wider group of policy analysts and educators than was previously the case.

Sachs, Jeffrey

TI Capital Controls and the Timing of Exchange Regime Collapse. AU Park, Daekuen; Sachs, Jeffrey.

Saghafi, Massoud M.

PD September 1986. TI Advertising and Cigarette Industry Sales in the United States. AU Saghafi, Massoud M.; Hubbard, Raymond. AA Saghafi: University of Southern California and Drake University.

Hubbard: Drake University. SR University of Southern California Modelling Research Group Working Paper: M8639; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 21. PR No Charge. JE 531, 631. KW Cigarettes. Advertising. Cigarette Industry. Consumption Forecasting. Advertising Ban. Marketing. Smoking.

AB This paper surveys the literature concerning the determinants of cigarette consumption. A model is also presented to assess the impact of advertising, together with a number of other variables, on annual per capita cigarette consumption in the United States. No statistically significant relationship between advertising and cigarette industry sales was found, thus supporting the claim that such expenditures are primarily concerned with reallocating existing demand among competing brands, rather than being directed toward increasing aggregate demand levels. Other findings indicated that habitual and health factors are influential determinants of cigarette consumption, whereas the T.V. and radio advertising ban effective 1971 and the price per pack of cigarettes are not. The proposed model yielded excellent ex post forecasts of cigarette consumption rates. Finally, a number of avenues for future research are identified.

TI Concentration Trends in the United States Manufacturing Sector: 1970-1984. AU Attaran, Mohsen; Saghafi, Massoud M.

PD December 1986. TI Optimal Price-Quantity Decisions for Demand-Related Commodities. AA Drake University and University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8645; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 16. PR No Charge. JE 022. KW Pricing Decisions. Costs. Profits. Rate of Return. Demand.

AB Several recent studies have addressed the problem of pricing decisions for demand-related commodities. One characteristic common in these studies is the assumption that average costs are constant and thus, neither economies nor diseconomies of scale are present. This paper will generalize the existing literature by relaxing this assumption and explores new dimensions of this subject. In specific, it will be shown that unlike what the existing literature suggests, a firm producing demand-related commodities does not necessarily need to operate in the elastic segment of its demands. Also, in addition to profits, rate of return approach is introduced into the analysis.

Sah, Raaj Kumar

PD June 1986. TI Queues, Rations, and Market: Comparisons of Outcomes For the Poor and the Rich. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 504; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 34. PR \$2.00. JE 121, 027, 914, 024. KW LDCs. Centrally Planned Economies. Allocation Systems. Rationing. Queues. Distribution Systems. Convertibility.

AB This paper compares the outcomes of several basic

types of allocation systems which are commonly employed in developing countries and centrally planned economies to distribute certain goods among individuals. The allocation systems (to distribute the limited supply of a deficit good) that we compare are: convertible and non-convertible rations, the queue system with and without secondary trade, the bundling of goods (in which the deficit good is bundled with some other good), and non-intervention (that is, the unhindered market). Our analysis focusses on obtaining positive results: for each pair of allocation systems, we attempt to ascertain whether a specific group of individuals (particularly the rich and the poor) is better-off under one allocation system or another. The resulting insights and conclusions are valid and informative, regardless of the social criterion (or political reasons) based on which a government might choose an allocation system. Among the results we obtain are that, for the poor, the ranking of allocation systems (from better to worse) is: convertible rations, non-convertible rations, the queue system without secondary trade, and non-intervention. The queue system, thus, does not turn out to be relatively as beneficial to the poor as it is often thought to be. The bundling system is shown to be inferior for the poor than either convertible or non-convertible rations. The rich are found to be better-off under non-intervention than under most other allocation systems. Also, contrary to the common belief, we show that a rationing system with convertibility is not weakly Pareto superior to the one without convertibility. These and other results are notably robust not only to many of the parameters of the economy, but also to certain types of commodity taxes (and subsidies) and administrative costs.

PD June 1986. TI Distributional Consequences of Rural Food Levy and Subsidized Urban Rations. AU Sah, Raaj Kumar; Srinivasan, T. N. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 505; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 31. PR \$2.00. JE 121, 917, 718, 931. KW Subsidized Food Rations. Subsidies. Distribution of Wealth. Price Discrimination. Rural Sector.

AB In many developing economies, governments provide limited quantities of subsidized food rations to their urban population. This paper presents a positive analysis of the impact of such subsidy systems on the welfare of heterogeneous individuals within the urban and the rural sectors, when the urban subsidy is funded through a levy on farmers. Though such an intervention has the appearance of a transfer from the rural to the urban sector, we characterize the conditions under which the opposite happens; that is, certain groups in the rural sector become better-off due to the intervention, while some of those in the urban sector become worse-off. Moreover, the rich turn out to be among the gainers while the poor are among the losers from the intervention. Such counter-intuitive outcomes arise not only because of the general equilibrium effects of the intervention, but also because a procurement cum rationing system entails particular types of price discrimination among individuals. In addition, we identify systematic patterns between the groups which gain versus those who lose from the intervention.

PD July 1986. TI The Economics of Town-Versus-Country Problems. AU Sah, Raaj Kumar; Stiglitz,

Joseph E. AA Sah: Yale University. Stiglitz: Princeton University. SR Yale Economic Growth Center Discussion Paper: 508; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 10. PR \$2.00. JE 112, 111, 113, 121, 713, 931. KW Capital Accumulation. Industrialization. Resource Transfer. Urban Sector. Rural Sector.

AB The question of how the funds required for the capital accumulation associated with industrialization are to be raised has a long history. Since the industrial sector is relatively small in the early stages of industrialization, there has been a presumption that funds must primarily come from the agricultural sector. The issue has been how best to extract these funds, what are the effects of such a resource transfer, what is the nature of the limits on the amounts to be extracted, and whether, in this process, it is desirable or necessary to squeeze simultaneously the urban proletariat.

PD July 1986. TI Managerial Quality In Centralized Versus Decentralized Economic Systems. AU Sah, Raaj Kumar; Stiglitz, Joseph E. AA Sah: Yale University. Stiglitz: Princeton University. SR Yale Economic Growth Center Discussion Paper: 515; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 24. PR \$2.00. JE 511, 512, 513, 514, 025. KW Centralization. Decentralization. Decision-Making. Management Quality.

AB In this paper, we ask, what are the dynamic consequences of a greater centralization or decentralization of decision-making authority (to appoint managers) on the quality of managers who are actually appointed? The central result we obtain is that there is a greater variability (over time) in the quality of managers in a more centralized system. An intuitive reason underlying this result is that though a highly capable decision maker has large beneficial effects on the managerial choices within a centralized system (because this decision maker wields greater authority in such a system), a highly incapable decision maker placed in the same position has correspondingly large deleterious effects. Our analysis also investigates the consequences of the above differences in managerial quality on the outputs of centralized versus decentralized systems.

Salanie, Bernard

TI Estimation of Multi-Market Fix-Price Models: An Application of Pseudo-Maximum Likelihood Methods. AU Laroque, Guy; Salanie, Bernard.

Saloner, Garth

PD March 1987. TI Predation, Monopolization and Antitrust. AU Saloner, Garth; Ordoover, Januss A. AA Saloner: National Fellow, Hoover Institution and Massachusetts Institute of Technology. Ordoover: New York University. SR Stanford Hoover Institute Working Paper in Economics: E-87-17; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 96. PR No Charge. JE 611, 612. KW Antitrust. Predation. Monopolisation. Market Share.

AB This paper examines the strategies incumbent firms can employ to protect or enlarge their market shares. These strategies include low prices, output expansions,

introductions of new products, redesigns of existing products, promotions, etc. We explore the welfare properties of these actions, and review various tests that have been devised to diagnose which of them are anticompetitive.

PD March 1987. TI The Relative Rigidity of Monopoly Pricing. AU Saloner, Garth; Rotemberg, Julio J. AA Saloner: National Fellow, Hoover Institution and Massachusetts Institute of Technology. Rotemberg: Massachusetts Institute of Technology. SR Stanford Hoover Institute Working Paper in Economics: E-87-16; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 35. PR No Charge. JE 611, 612, 131, 022. KW Rigidity. Monopoly. Menu Costs. Duopoly. Oligopoly. Price Variability.

AB This paper seeks to explain why monopolies keep their nominal prices constant for longer periods than do tight oligopolies. We show that monopolists and duopolists generally have different incentives to change their prices in response to cost and demand changes. Cost changes create a larger incentive for duopolists to change their prices while demand changes tend to have a greater effect on a monopolist. When both costs and demand are affected by small changes in the overall price level, the cost effect dominates the demand effect and duopolists have a greater incentive to change their prices than a monopolist does. In the presence of a small fixed cost of changing prices, therefore, the duopolists change their prices in response to smaller perturbations in underlying conditions than the monopolist does.

PD March 1987. TI Compatibility Standards and the Market for Telecommunications Service. AU Saloner, Garth; Besen, Stanley M. AA Saloner: National Fellow, Hoover Institution and Massachusetts Institute of Technology. Besen: The RAND Corporation. SR Stanford Hoover Institute Working Paper in Economics: E-87-15; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 93. PR No Charge. JE 611, 612, 613, 635. KW Standards. Integrated Services Digital Networks. Compatibility. Telecommunications. Competition. Digital Networks. Communication.

AB This paper analyzes the processes by which compatibility standards are produced. We focus particularly on voluntary standards that are established cooperatively and de facto standards that are established by "the market". We examine the forces that determine which process will be used to determine a standard, and consider the possible use of standards to create competitive advantage for some firms. We focus particularly on the telecommunications industry, and examine in some details the process by which standards are being established for Integrated Services Digital Networks and the implications of that process for public policy.

TI Coordination Through Committees and Markets. AU Farrell, Joseph; Saloner, Garth.

TI Coordination Through Committees and Markets. AU Farrell, Joseph; Saloner, Garth.

PD June 1987. TI The Cyclical Behavior of Strategic

Inventories. AU Saloner, Garth; Rotemberg, Julio J. AA Saloner: National Fellow, Hoover Institution, and Massachusetts Institute of Technology. Rotemberg: Massachusetts Institute of Technology. SR Stanford Hoover Institute Working Paper in Economics: E-87-22; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 47. PR No Charge. JE 131, 611, 022, 026. KW Inventories. Business Cycle. Collusion. Sales. Duopoly.

AB This paper presents a model in which inventories are used, by a duopoly, to deter deviations from an implicitly collusive arrangement. Higher inventories allow firms to punish cheaters more strongly and can thus help to maintain collusion. We show that when demand is high, the incentive to deviate increases so that increases in inventories may be optimal for the duopoly. This rationalises the observed positive correlation between inventories and sales. In our empirical section we show that, as our model predicts, this correlation is more important in concentrated industries.

Sargan, J. D.

PD 1986. TI A Set of Preliminary Estimates of a Small Model of the British Economy. AU Sargan, J. D.; Weber, G. AA Sargan: Department of Economics, London School of Economics. Weber: Econometrics Project, London School of Economics. SR London School of Economics Econometrics Programme Discussion Paper: A.61; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. PG 39. PR No Charge. JE 132, 133, 211, 212, 122. KW Macroeconometric Model. Britain. Rational Expectations. Government Decision Variables.

AB The model discussed here was intended to form the basis for a later more efficient estimation of a model of the British Economy containing rational expectations and treating government decisions as endogenous, by using as the only exogenous variables external (World) variables. The form of the model was largely determined by the a priori assumption that in a model with a quarterly data lags of up to four quarters in the variables should be included in the equations, and that the rational expectations of the variables should be therefore also formed from equations which contain the values of all the variables up to four quarters lagged. Given that the length of the sample period over which a constant structure for the model generating the data can only plausibly be assumed to be ten years, this gives a strict limit on the number of variables to be included in the model. As a result it was decided to use a model with only six endogenous variables, chosen to represent those variables which are closely related to both government and private decision making in the short period. Since the model can be regarded as aggregating the micro-variables of a much larger model, the resulting aggregate model will have a much more complicated lag structure than the original micro-model, and indeed, since it is based on estimation from a finite sample, can only be a relatively simplified approximation to the time structure. (This is, of course true to some degree of any model.) However if the procedures which it is desired to research in our project

are to be used some rather simple model of the type specified here will have to be used.

TI Some Single Endogenous Variable Rational Expectation Models. Asymptotic Theory and Finite Sample Simulations Compared. AU Marwaha, Satwant S.; Sargan, J. D.

Sarig, Oded

TI On Multiperiod Dividend Policies Under Symmetric Information. AU Detemple, Jerome; Sarig, Oded.

TI On Multiperiod Dividend Policies Under Symmetric Information. AU Detemple, Jerome; Sarig, Oded.

Schmeidler, David

PD May 1987. TI Israel and the PLO: A Game with Differential Information. AU Schmeidler, David; Mishal, Shaul; Sened, Itai. AA Sened: University of Rochester. Schmeidler: Department of Economics, Tel-Aviv University. Mishal: Tel-Aviv University and Center for International Affairs, Harvard University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 8-87; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 33. PR No Charge. JE 026. KW Games. Differential Information. Nash Equilibrium. Politics. Conflict. Israel. PLO.

AB An application of a game with differential information to the conflict between Israel and the PLO is presented. There are two possible types of player - minimalist and maximalist - for each side. Starting from basic assumptions a set of reasonably probable outcomes and cardinal utilities of each type of each side are constructed. Nash Equilibria with pure strategies predict high probability for a continuing status-quo and low probabilities for a comprehensive settlement or armed conflict. The paper clarifies the underlying structural components of the Israeli-Palestinian conflict and offers directions for future research. Particular attention is paid to the correlation between the types of players and the ability to predict their patterns of behavior. In contrast to the minimalist policy, the resilient and thus the predictability of the maximalist policy is sensitive to information about the type of the other side. Such information is assumed to be incomplete if not scarce.

Schmidt, Peter

TI Efficient Estimation Using Panel Data. AU Breusch, Trevor S.; Mizon, Grayham E.; Schmidt, Peter.

Schmitz, Andrew

TI Gains and Losses of Sugar Program Policy Options. AU Leu, Gwo Juin M.; Schmitz, Andy; Knutson, Ronald D.

TI U. S. Agriculture and Manufacturing: the Net Cost of Government Intervention. AU Babcock, Bruce A.; Allen, Roy E.; Schmitz, Andrew.

TI Hog Cycles and Countercyclical Production Response. AU Hayes, Dermot; Schmitz, Andrew.

TI Trade and Welfare Effects of Agricultural Policies in

the European Community. AU Hayes, Dermot; Schmitz, Andrew.

PD March 1986. TI Domestic Farm Policy and the Gains from Trade. AU Schmitz, Andrew; Sigurdson, Dale; Doering, Otto. AA Schmitz: Department of Agricultural and Resource Economics, University of California, Berkeley. Sigurdson: Government of Saskatchewan, Canada. Doering: Department of Agricultural and Resource Economics, Purdue University. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 384; 207 Giannini Hall, University of California, Berkeley, CA 94720. PG 25. PR \$5.00. JE 411, 421, 422, 713. KW Agricultural Policy. Exports. Supply and Demand. Subsidies. Price Supports. Trade Barriers. Grain. Wheat.

AB In recent years many of the grain exporting countries, such as the United States, have experienced a phenomenal expansion in their volume of export shipments. However, this expansion has not been due only to competitive supply and demand forces. Domestic government policies such as price supports and input subsidies have also played a significant role. As a result, although the volume of exports is large, one has to ask the fundamental question: Are there any economic gains generated from these exports because of the influence of trade barriers and domestic farm programs? It is interesting that the many papers written (on the 1985 United States Farm Bill, for example) seem to side step the important gains from trade issue by neglecting the important theoretical literature on the gains from trade. This question of economic gains from trade can be addressed in the context of gains from trade theory. This paper shows that, even though the volume of trade is large in physical terms, the economic gains from these shipments can be small or nonexistent. This is because of the influence of international trade barriers and domestic farm programs. In this paper, the critical no gains from trade point is derived. This results because farm programs, such as production subsidies, in the presence of international trade barriers can completely eliminate any trade gains. This can occur even though the volume of trade may be substantial because the exporter subsidies are transferred to importers as well as to domestic producers while the general public bears the cost. To assess the plausibility of these results, numerical calculations based on the international wheat market are made. Also, the sugar market is considered where, unlike for wheat, the United States is a major importer.

Schultz, Paul T.

PD January 1986. TI The Fertility Revolution: A Review Essay. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 497; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 25. PR \$2.00. JE 841, 913. KW Fertility. Contraceptives. World Population. Demographics.

AB The Fertility Revolution: A Supply-Demand Analysis (University of Chicago Press, 1985) by Richard A. Easterlin and Eileen M. Crimmins cogently poses broad issues and seeks to integrate our understanding of the variations in fertility and contraceptive use that underly

the demographic transition. The empirical implementation of the proximate determinants framework for the study of fertility is, in the authors' words, "perhaps the most important innovation" (p. 182) in this book. I shall argue, however, that the statistical methodology advanced by Easterlin and Crimmins is seriously flawed and may mislead us in quantifying the developments that are encouraging the world's population to restrict its fertility.

PD July 1986. TI The Value and Allocation of Time In High Income Countries: Implications for Fertility. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 507; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 30. PR \$2.00. JE 122, 841, 821, 921. KW Value of Time. Fertility. Developed Countries. Opportunity Cost. Chile Care. Industrial Society. Children.

AB The household demand framework assigns importance to the parent-specific time requirements of having (and enjoying) children and the distinct price effects of the opportunity value of women's and men's time in market and nonmarket production. The framework implies that if child care duties can be transferred to the market without loss of parental satisfaction, then the link between the opportunity value of the parents' time and the shadow price of children would be partially broken. The family may use increasingly the market for specialised preschool child care and extended adolescent schooling. But this development is not likely to prevent the opportunity cost of children from continuing to rise, though it may dampen the rate of increase. Fertility may not, therefore, rebound substantially and permanently from its current trough, though it may become less sensitive to women's wages for reasons indicated. Intermittent periods of fertility increase, however, can be expected, as the timing of fertility becomes subject to perfected methods of control. This paper restates the simple static economic theory that underlies this framework, reviews the evidence from modern industrial societies in recent decades, and considers the wage, price, and labor market conditions that would, according to the theory, help forecast future levels of fertility.

TI The Stability of Household Production Technology: A Replication. AU Rosenzweig, Mark R.; Schultz, Paul T.

PD October 1986. TI Economic Demography and Development: New Directions In An Old Field. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 516; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 55. PR \$2.00. JE 841, 112, 111, 921. KW Economic Demography. Population Growth. Economic Development. Family Behavior. Household.

AB This paper surveys a literature on the economic determinants of household demographic and economic behavior, one that has contributed to a reappraisal of the consequences of rapid population growth on economic development. Guided by the theory of household demand and production, empirical studies have shown that fertility, family labor supply, market coordinated specialization of production, and investments in the

productivity of humans are interrelated activities with common economic origins in the household economy. Differences in these forms of family behavior are partially explained by theoretically prescribed economic variables that can be taken as exogenous from the viewpoint of the individual household. These exogenous determinants of household production-demand behavior include lifetime wage rates, market prices, initial assets, public sector services and infrastructure, and programs that extend information to households that is useful in production, such as public health and family planning programs. Estimation of "structural" relationships among family choice variables are not generally identified, according to household demand framework, because the exogenous variables and constraints that condition one class of family behavior are also likely to condition other forms of family demographic and economic behavior. This inability to disentangle how endogenous family choice outcomes interact does not prevent consistent estimation of reduced forms. These reduced-form equations are useful for assessing how localised programs and policies affect household outcomes, and how the benefits of programs are distributed by exogenous population groups, such as by education, race, or sex.

TI Who Receives Medical Care? Income, Implicit Prices and the Distribution of Medical Services Among Pregnant Women In the United States. AU Rosensweig, Mark R.; Schultz, Paul T.

PD February 1987. **TI** Education Investments and Returns In Economic Development. AA Yale University. **SR** Yale Economic Growth Center Discussion Paper: 528; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 115. **PR** \$2.00. **JE** 112, 912, 851. **KW** Education. Human Capital Investment. Development. Schools. Productivity. **AB** This paper reviews several themes in the economic literature on education and development: (1) intercountry evidence on how income, price, and demographic constraints govern public expenditures on schools, (2) alternative conceptual interpretations of the relationship between education, productivity, and income, (3) uncertainties underlying the micro econometric evidence on the private and social returns to schooling in the labor market, which can generally be classified as model misspecification arising because of either the omission of appropriate controls or the neglect of potential sources of sample selection bias, (4) indications of the returns to schooling in nonmarket production of child health, education, and fertility control, primarily associated with the education of women who perform most of these activities in the home, and finally (5) evidence on how the allocation and management of public educational resources influence the efficiency with which these services are produced and the distribution of resulting private benefits among persons. Many aspects of these relationships are poorly understood. Because in practice only a few of the many proposed complicating features of human capital models can be implemented simultaneously, assigning priorities for further research is imperative. Among the numerous gaps in knowledge surveyed in the paper some can be closed with focused microeconomic empirical research using existing methods, and are likely to occur with the increasing supply of household survey and census

data for low income countries. Other questions remain unanswered for lack of a specification of the dynamic aggregate interplay between the supply of investments in the formation of human capital and the modern sources of the derived demand for the skills that education produces. Progress on this latter frontier of the field is equally important, but less certain.

TI Fertility and Investments In Human Capital: Estimates of the Consequences Of Imperfect Fertility Control In Malaysia. AU Rosensweig, Mark R.; Schultz, T. Paul.

Schurger, Klaus

PD May 1987. **TI** Multiparameter Almost Superadditive Limit Theorems and Their Application to Combinatorial Optimization. AA University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-81; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 36. **PR** No Charge. **JE** 211, 213. **KW** Multiparameter. Limit Theorem. Poisson Smoothing. Superadditivity.

Schwert, G. William

PD January 1987. **TI** Tests for Unit Roots: A Monte Carlo Investigation. 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: GPB87-01; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 20. **PR** NC single copies 50 cents each paper beyond 5 in each order. **JE** 211. **KW** Unit Root. Stationarity. Autoregressive-Integrated-Moving Average. Dickey-Fuller Tests. ARIMA. **AB** Recent work by Said and Dickey '1984, 1985, Phillips '1986, and Phillips and Perron '1986 examines tests for unit roots in the autoregressive part of mixed autoregressive-integrated-moving average (ARIMA) models (tests for stationarity). Monte Carlo experiments show that these unit root tests have different finite sample distributions than the unit root tests developed by Fuller '1976 and Dickey and Fuller '1979, 1981 for autoregressive processes. In particular, the tests developed by Phillips '1986 and Phillips and Perron '1986 seem more sensitive to model misspecification than the high order autoregressive approximation suggested by Said and Dickey '1984.

PD February 1987. **TI** Effects of Model Specification on Tests for Unit Roots in Macroeconomic Data. 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: GPB87-03; William E. Simon Graduate School of Business Administration, University of Rochester, Rochester, NY 14627. **PG** 26. **PR** NC single copies 50 cents each paper beyond 5 in each order. **JE** 211, 131, 134, 311, 313, 212. **KW** Unit Root. Stationarity. Autoregressive-Integrated-Moving Average. Inflation. Volatility. Dickey-Fuller Test. ARIMA.

AB Tests for unit roots in autoregressive models (tests for stationarity) are popular in the macroeconomics

literature. Monte Carlo experiments in Schwert '1987 show that unit root tests derived for pure autoregressive processes have different sampling distributions when the true process is a mixed autoregressive-integrated-moving average (ARIMA) process. Tests suggested by Said and Dickey '1984, 1985, Phillips '1987, Phillips and Perron '1988 and Dickey and Fuller '1979, 1981 are applied to a variety of monthly and quarterly macroeconomic time series to illustrate the effects of ARIMA model specification on inferences about stationarity.

Scotchmer, Suzanne

TI Partnerships. AU Farrell, Joseph; Scotchmer, Suzanne.

Sened, Itai

TI Israel and the PLO: A Game with Differential Information. AU Schmeidler, David; Mishal, Shaul; Sened, Itai.

Serrato, Carl

TI Charges and Outcomes for Rehabilitative Care: Implications for the Prospective Payment System. AU Hosek, Susan; Kane, Robert; Carney, Maureen; Hartman, Janice; Reboussin, David; Serrato, Carl; Melvin, John.

Shafer, Wayne

TI Equilibrium in Incomplete Markets: I. A Basic Model of Generic Existence. AU Duffie, Darrell; Shafer, Wayne.

TI Equilibrium in Incomplete Markets: II. Generic Existence in Stochastic Economies. AU Duffie, Darrell; Shafer, Wayne.

Shanken, Jay

TI Subperiod Aggregation and the Power of Multivariate Tests of Portfolio Efficiency. AU Gibbons, Michael R.; Shanken, Jay.

Shiller, Robert J.

TI Econometric Modeling as Information Aggregation. AU Fair, Ray C.; Shiller, Robert J.

Sigurdson, Dale

TI Domestic Farm Policy and the Gains from Trade. AU Schmits, Andrew; Sigurdson, Dale; Doering, Otto.

Silber, Jacques

PD October 1986. TI Asymmetric Price Changes and Indexation Schemes. AA Bar Ilan University, Israel. SR University of Southern California Modelling Research Group Working Paper: M8640; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 15. PR No Charge. JE 134, 227, 824, 022. KW Asymmetry. Compensation. Dispersion. Indexation. Inflation. Israel. Mean Difference. Purchasing Power. Variability. Welfare Cost.

AB A suggestion is made to devise indexation schemes which would take into account the variability of price changes and not only the loss of purchasing power. However since variability depends on both the dispersion

and the asymmetry of price changes, two compensation schemes, both based on the use of Gini's mean difference, have been proposed, one which compensates for the rate of inflation as well as the dispersion of price change, the other which offers also an adjustment for the asymmetry of the distribution of price changes. An illustration based on Israeli data is also presented.

PD October 1986. TI Measures of Economic Welfare and the Skewness of Income Distributions. AA Bar Ilan University. SR University of Southern California Modelling Research Group Working Paper: M8641; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 17. PR No Charge. JE 024, 225. KW Asymmetry. Dispersion. Gini Index. Household Income. Income Distribution. Inequality. Mean Difference. Skewness. Social Welfare.

AB This study suggests that high values of the Gini Index of Inequality may be related to the skewness rather than to the dispersion of income distributions. Since skewness to the right and dispersion should have opposite effects on social welfare, a new index GA is proposed, which adjusts the Gini Index for the asymmetry of income distributions. Illustrations based on data on the distributions of household incomes in various countries in 1968 confirm the relevance of the suggestions made.

Silvia, Louis

PD May 1987. TI A Note on Joint Ventures in Which Firms Contribute Complementary Inputs. AA Bureau of Economics, United States Federal Trade Commission. SR Federal Trade Commission Bureau of Economics Working Paper: 152; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Avenue Northwest, Washington, D.C. 20580. PG 22. PR No Charge. JE 611, 612. KW Joint Ventures. Antitrust Policy. Input Complementarities. Royalty Agreements. Lump Sum Payments.

AB This note compares the efficiency of a joint venture with supply, output royalty and lump sum arrangements in the context of firms contributing complementary inputs to some project. In a world of certainty and no transactions costs, input complementarities would not be a sufficient condition for firms to prefer a joint venture over other kinds of contracts. Under these conditions, lump sum agreements are always as efficient as a joint venture, and depending on the production function, sales or output royalty agreements may also be as efficient. This analysis suggests that all efficiency-driven joint ventures are a response to some underlying transactional cost problem.

Singell, Larry D. Jr

TI Knight on Risk and Uncertainty. AU LeRoy, Stephen F.; Singell, Larry D. Jr.

Singer, Burton

PD November 1986. TI Advancing Social Research: An Essay Based On S. Lieberman's Making It Count. AU Singer, Burton; Marini, Margaret Mooney. AA Singer: Yale University. Marini: Vanderbilt University. SR Yale Economic Growth Center Discussion Paper: 521; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520.

PG 25. PR \$2.00. JE 211. KW Sociology. Sociological Methods. Methodology.

AB We review Stanley Lieberman's book, *Making It Count: The Improvement of Social Research and Theory* (University of California Press, 1985). This is an important, stimulating, and provocative book that should be required reading in sociological methods and theory courses. It deserves attention because it is a reasoned critique of the logic underlying contemporary social research by a sociologist who has been engaged in research for many years. Lieberman's arguments cut to the heart of what sociology is and should be, calling for a different approach to the study of social phenomena. The book deals with the objectives of social research and focuses attention on the current disjuncture between research and theory. In essence, Lieberman argues that social research should more often be designed for the purpose of providing evidence relevant to theory and that moving in this direction will require changes in research practices. In this essay we review and elaborate on Lieberman's major points.

Singh, Radhey S.

PD April 1987. TI Estimation of Error Variance in Linear Regression Models with Errors Having Multivariate Student-t Distribution with Unknown Degrees of Freedom. AA University of Guelph, Ontario, Canada. SR Monash Department of Econometrics and Operations Research Working Paper: 5/87; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 10. PR No Charge. JE 211. KW Multivariate Student-t Distribution. Degrees of Freedom. Error Variance. Estimation.

AB The linear regression model, $y = XB + u$, where the components of the disturbance vector u have jointly multivariate Student-t distribution with unknown degrees of freedom, is considered. An estimator of the degrees of freedom parameter is provided. This estimator is used to provide estimates, computable from the data, of the usual unbiased and minimum mean square error estimators of the error variance and of their variances, which are, otherwise, not computable from the data.

PD April 1987. TI A Family of Improved Estimators in Linear Regression Models with Errors Having Multivariate Student-t Distribution. AA University of Guelph, Ontario, Canada. SR Monash Department of Econometrics and Operations Research Working Paper: 4/87; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 23. PR No Charge. JE 211. KW Linear Regression Model. Multivariate Student-t Distribution. Unique MVUE. Bias. Mean Square Error. Variance-Covariance Matrix.

AB In this paper estimation of B in the regression model $y = XB + u$, where the error components in u have jointly multivariate Student-t distribution, is considered. A family of estimators (characterized by nonstochastic scalars) is presented. Sufficient conditions involving only X are given under which these estimators dominate, (with respect to the risk under a general quadratic loss function), the usual minimum variance unbiased estimator of B . Approximate expressions for the bias, the risk, mean square error matrix and the variance-covariance matrix for

the estimators in this family are obtained. A necessary and sufficient condition for the dominance of this family over MVUE is also given.

PD May 1987. TI MELO and Empirical Bayes Estimators for Reciprocals of Population Means and Regression Coefficients. AA University of Guelph, Ontario, Canada. SR Monash Department of Econometrics and Operations Research Working Paper: 6/87; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 27. PR No Charge. JE 211. KW Reciprocals. Population Means. Regression Coefficients. Relative Quadratic Loss. Minimum Expected Loss Estimators. Empirical Bayes Estimators. Consistency. Asymptotic Optimality.

AB In this paper empirical Bayes (EB) is employed to relative quadratic error loss estimations of reciprocals of population means and regression coefficients involving normal or exponential likelihood functions. As demonstrated by Zellner (1978), whereas the usual maximum likelihood estimators do not possess finite moments and have infinite risks w.r.t. relative quadratic and other loss functions, the minimum expected loss (MELO) estimators can possess finite moments and can have finite risks w.r.t. such loss functions. However, MELO estimators are not available for use in practice unless one assumes the knowledge of prior distribution G or employ a specific G such as diffuse or natural conjugate prior distribution. In this paper EB estimators are provided. These estimators are computable. Further, these are consistent in probability as well as in quadratic mean and are asymptotically optimal for MELO estimators, whatever may be G with posterior p.d.f.'s satisfying certain moment conditions. Speeds of convergence for consistency properties are also investigated.

Sinha, Anup K.

PD December 1986. TI International Trade and Economic Development: The Contending Perspective. AA Presidency College, Calcutta, India. SR University of Southern California Modelling Research Group Working Paper: M8650; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 26. PR No Charge. JE 411, 112. KW Trade Theory. Structuralism. Marxist Theories. Gains from Trade. State Power.

AB This paper surveys the different approaches to the analysis of international trade and economic development. Recent Neoclassical trade theory, the conjectures of Marx, the Neo-Marxist theories of trade and underdevelopment, and the structuralist (North-South) literature is examined. The different perspectives all seem to indicate that the gains-from trade is a potential concept. Its realization and distribution depend largely on the structure of markets, the nature of policies and the character of state power.

Smith, William T.

PD June 24, 1987. TI A Blanchard Model with Aggregate Risk. AA Virginia Polytechnic Institute and State University. SR Virginia Polytechnic Institute and State University Working Paper in Economics: E86-08-01; Working Paper Coordinator, Department of Economics,

Sandy Hall, Blacksburg, VA 24061. PG 21. PR Free by request. JE 023, 111. KW Stochastic Growth. Dynamic Behavior. Consumption. Optimizing Model.

AB Existing Blanchard models are constructed so that the probability of death faced by individuals does not create uncertainty for the economy as a whole. This paper introduces aggregate risk through a stochastic production technology. Assuming exponential preferences, the equilibrium capital stock is constant at a level equates the anticipated rate of return to capital to the riskless rate plus a risk premium. Although individual wealth processes are nonstationary (Brownian motion with drift), aggregate wealth is stationary (Ornstein-Uhlenbeck) as long as the probability of death is positive. This suggests "mortality risk" may be a natural stabilizing force in the aggregate economy.

Sofianos, G.

TI Loan Commitments and Monetary Policy. AU Melnick, A.; Sofianos, G.; Wachtel, P.

Souza, R. C.

TI Assessing and Modelling the Cyclical Behaviour of Rainfall in North-East Brasil. AU Harvey, Andrew C.; Souza, R. C.

Spiller, Pablo T.

PD June 1987. TI Arbitrage Costs and the Efficiency of the Dollar-Sterling Gold Standard, 1899-1908: An Econometric Perspective. AU Spiller, Pablo T.; Wood, Robert O. AA Spiller: Hoover Institution; University of Illinois. Wood: Stanford University. SR Stanford Hoover Institute Working Paper in Economics: E-87-20; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 32. PR No Charge. JE 041, 431, 212. KW Arbitrage. Gold Standard. Exchange Rates.

AB This paper presents a new perspective on the efficiency of the gold standard. The efficiency of such a system is herein assessed by estimating the distribution of arbitrage costs and the frequency with which arbitrage is triggered. This paper applies an econometric methodology developed in Spiller and Wood (1987) to perform such an estimation for arbitrage between the United States and Great Britain during the period 1899 to 1808. We conclude that the system was relatively efficient, since arbitrage costs were small and arbitrage was triggered only with a probability of 30 per cent. Finally, arbitrage costs are found to be quite volatile.

Spulber, Daniel F.

PD October 1986. TI Contract Damages and Competition. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8642; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 25. PR No Charge. JE 022, 611, 916. KW Contracts. Expectation Damages. Reliance Damages. Specific Performance. Breach of Contract. Contract Renegotiation.

AB Damages for breach of contract are examined in a competitive market setting. A buyer enters into contracts with multiple sellers. In the absence of ex post

renegotiation of contracts, expectation damages and specific performance yield identical and inefficient market structure and social welfare. Welfare under expectation damages may be greater or less than welfare under reliance damages depending on the relative levels of expected production costs and sunk costs. When ex post spot markets can form, all damage rules are efficient if expectation damages are replaced by the net market value of equivalent performance.

TI Menu Costs and the Neutrality of Money. AU Caplin, Andrew S.; Spulber, Daniel F.

Srinivasan, T. N.

TI Distributional Consequences of Rural Food Levy and Subsidized Urban Rations. AU Sah, Raaj Kumar; Srinivasan, T. N.

Steiner, George

PD February 1987. TI On Computing the Information Theoretic Bound for Sorting: Balancing the Linear Extensions of Posets. AA McMaster University, Hamilton, Ontario. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 87460-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 21. PR No Charge. JE 213. KW Partially Ordered Set. Polynomial Time Algorithm. Posets.

AB The information theoretic lower bound for the number of pairwise comparisons needed to sort a finite partially ordered set P is $\log_2 e(P)$, where $e(P)$ is the number of linear extensions of P . Kahn and Saks have shown that this bound is tight up to a multiplicative constant. To meet this bound one needs to find $\text{pr}(P:x \text{ less than } y)$, the fraction of linear extensions of P in which x precedes y . We present polynomial time algorithms to find $\text{pr}(P:x \text{ less than } y)$ if P belongs to the special classes of posets with bounded width and with bounded width decomposition diameter. This facilitates designing sorting and merging algorithms which meet the information theoretic bound. We also show that any series-parallel P contains a pair x, y elements of P for which $1/3$ less than or equal to $\text{pr}(P:x \text{ less than } y)$ less than or equal to $2/3$.

PD February 1987. TI On Computing the Information Theoretic Bound for Sorting: Counting the Linear Extensions of Posets. AA McMaster University, Hamilton, Ontario, Canada. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 87459-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 18. PR No Charge. JE 213. KW Posets. Polynomial Time Algorithm. Partially Ordered Set.

AB The information theoretic lower bound for the number of pairwise comparisons needed to sort a finite partially ordered set P is $\log_2 e(P)$, where $e(P)$ is the number of linear extensions of P . Kahn and Saks have shown that this bound is tight up to a multiplicative constant. Determining $e(P)$, however, is probably a hard computational problem. We present polynomial time algorithms to find $e(P)$ if P belongs to the special classes of posets with bounded width and with bounded width decomposition diameter. A fast method for obtaining a new upper bound on $e(P)$ is also included.

Stiglitz, Joseph E.

TI The Economics of Town-Versus-Country Problems. AU Sah, Raaj Kumar; Stiglitz, Joseph E.

TI Managerial Quality In Centralised Versus Decentralised Economic Systems. AU Sah, Raaj Kumar; Stiglitz, Joseph E.

Stock, James H.

TI Estimation, Smoothing, Interpolation and Distribution for Structural Time Series Models in Discrete and Continuous Time. AU Harvey, A. C.; Stock, J. H.

TI Estimation of Multivariate Continuous Time Autoregressive Models with Common Stochastic Trends. AU Harvey, Andrew C.; Stock, James H.

TI Estimating Integrated Higher Order Continuous Time Autoregressions. AU Harvey, Andrew C.; Stock, James H.

PD April 1987. TI Interpreting the Evidence on Money-Income Causality. AU Stock, James H.; Watson, Mark W. AA Stock: Hoover Institution Stanford University. Watson: Northwestern University. SR National Bureau of Economic Research Working Paper: 2228; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 311, 023, 212, 211. KW Granger Causality. Money Supply. Gross National Product. Trends. Asymptotic Theory. Monetary Policy.

AB Previous authors have reached puzzlingly different conclusions about the usefulness of money for forecasting real output based on closely related regression-based tests. An examination of this and additional new evidence reveals that innovations in M1 have statistically significant marginal predictive value for industrial production, both in a bivariate model and in a multivariate setting including a price index and an interest rate. This conclusion follows from focusing on the trend properties of the data, both stochastic and deterministic, and from drawing inferences using asymptotic theory that explicitly addresses the implications of these trends for the distributions of the various test statistics.

PD June 1987. TI Hysteresis and the Evolution of Postwar U.S. and U.K. Unemployment. AA National Fellow, Hoover Institution and Harvard University. SR Stanford Hoover Institute Working Paper in Economics: E-87-19; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 44. PR No Charge. JE 824, 132, 131, 212. KW Time Deformation. Unit Roots. Nonlinear Time Series Models. Unemployment Persistence.

AB Hysteresis in unemployment can be characterized as a dependence of the persistence in unemployment on the level, or on changes, in unemployment. This paper presents an empirical investigation of this possible nonlinear behavior, in which the persistence and conditional heteroskedasticity of unemployment are allowed to depend on its recent history. Both United States and United Kingdom postwar unemployment are found to exhibit substantial nonlinearities of this form, with high and increasing unemployment corresponding to decreased persistence in both countries.

Stoker, Thomas M.

TI Investigations Smooth Multiple Regression by the Method of Average Derivatives. AU Hardle, Wolfgang; Stoker, Thomas M.

PD March 1987. TI Nonparametric Tests of Additive Derivative Constraints. AA Massachusetts Institute of Technology. SR Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-111; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. PG 51. PR No Charge. JE 211.

KW Nonparametric Tests. Weighted Average Derivatives. Additive Constraints. Tests of Constraints.

AB This paper proposes nonparametric tests of additive constraints on the first and second derivatives of a model $E(y/x)=g(x)$, where the true function g is unknown. Such constraints are illustrated by the economic restrictions of homogeneity and symmetry, and the statistical restrictions of additivity and linearity. The proposed tests are based on estimates of regression coefficients, that statistically characterize the departures from the constraint exhibited by the data. The coefficients are based on weighted average derivatives, that are reformulated in terms of derivatives of the density of x . Coefficient estimators are proposed that use nonparametric kernel estimators of the density and its derivatives. These statistics are shown to be square root of (N) consistent and asymptotically normal, and thus suffer no efficiency loss from the nonparametric treatment of the function $g(x)$.

Strauss, John

PD December 1985. TI The Impact of Improved Nutrition on Labor Productivity and Human Resource Development: An Economic Perspective. AA Yale University. SR Yale Economic Growth Center Discussion Paper: 494; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. PG 37. PR \$2.00. JE 913, 825, 921, 912, 851, 212. KW Nutrition. Labor Productivity. Education. Health. Food. Causality. Instrumental Variables.

AB Isolating the effects of improved nutrition on labor productivity and on health, education and other human capital investments is proving to be very difficult. A major problem has been that statistical analysis, both of experimental and survey data, consists of correlations between variables which economic analysis suggests are influenced by household decisions. Examples include correlations between measured labor productivity and current nutrient intakes. Since such associations may result from an income-calorie consumption relationship, causality cannot be inferred. With sufficiently rich economic data it is sometimes possible to infer causality using instrumental variables techniques. A very small number of studies have attempted to this, with promising results. This paper reviews the methodologies which have been used in the empirical literature, explains why the conclusions drawn from these methodologies don't always make sense when the economic behavior of individuals and households are considered, and points out corrective measures traditionally used by economists that have only begun to be used to analyze nutrition-productivity-health interactions.

Subrahmanyam, Marti

TI The Valuation of Stock Index Options.
 AU Brenner, Menachem; Courtadon, Georges;
 Subrahmanyam, Marti.

Sutch, Richard

TI Tontine Insurance and the Armstrong Investigation:
 A Case of Stifled Innovation in the American Life
 Insurance Industry, 1868-1905. AU Ransom, Roger L.;
 Sutch, Richard.

Svensson, Lars

PD May 1987. TI Excess Capacity, Monopolistic
 Competition and International Transmission of Monetary
 Disturbances. AU Svensson, Lars; van, Wijnbergen
 Sweder. AA Svensson: New York University. van
 Wijnbergen: The World Bank. SR National Bureau of
 Economic Research Working Paper: 2262; National Bureau
 of Economic Research, 1050 Massachusetts Avenue,
 Cambridge, MA 02318. PR \$2.00. JE 431, 023, 311.
 KW Rational Expectations. Open Economy. Monetary
 Policy. Exchange Rates. Interest Rates. Spillover Effects.
 AB A stochastic two-country neoclassical rational
 expectations model with sticky prices – optimally set by
 monopolistically competitive firms – and possible excess
 capacity is developed to examine international spillover
 effects on output of monetary disturbances. The Mundell-
 Fleming model predicts that monetary expansion at home
 leads to recession abroad. In contrast, our main result is
 that spillover effects of monetary policy may be either
 positive or negative, depending upon whether the
 intertemporal elasticity of substitution in consumption
 exceeds the intratemporal elasticity of substitution. The
 model in addition is used to determine nominal and real
 interest rates, exchange rates, and other asset prices.

Symons, James S. V.

TI Mid 1980s Unemployment. AU Newell, Andrew;
 Symons, James S. V.

Sze, Man Bing

TI Accounting for the Cost of Tactical Aircraft.
 AU Hildebrandt, Gregory G.; Sze, Man Bing.

Tarr, David G.

PD May 1987. TI A Note on Obtaining Estimates of
 Cross-Elasticities of Demand. AA Bureau of Economics,
 Federal Trade Commission. SR Federal Trade
 Commission Bureau of Economics Working Paper: 153;
 Bureau of Economics, Federal Trade Commission, 6th and
 Pennsylvania Avenue Northwest, Washington, D.C. 20580.
 PG 17. PR No Charge. JE 022, 212, 421, 422, 431.
 KW Cross-Elasticities. Elasticity. Weakly Separable
 Utility. Cross-Elasticity Estimates CES. World Steel
 Trade. Voluntary Export Restraints.

AB Based on the concept of weakly separable utility
 (which applied empirical work implicitly or explicitly
 assumes), this paper develops a theoretical condition that a
 set of own and cross-elasticity of demand estimates must
 satisfy. The paper shows how the condition may be used
 to evaluate or calculate estimates of cross-elasticities of
 demand. The condition is illustrated for the constant
 elasticity of substitution utility function. Finally, it is

applied to the problem of estimating the effects of the
 United States and EC extensive system of voluntary export
 restraints on world steel trade. Through its use, perverse
 results are avoided.

Tesfatsion, Leigh

TI Time-Varying Regression Via Flexible Least Squares.
 AU Kalaba, Robert; Tesfatsion, Leigh.

Thomas, S. H.

PD 1987. TI Relative Price Variability, Aggregate
 Price Uncertainty and Inflation in Canada. AU Thomas,
 S. H.; Weldon, F. AA Thomas: Southampton
 University. Weldon: Queen's University. SR University
 of Southampton Discussion Paper in Economics and
 Econometrics: 8703; Department of Economics, University
 of Southampton, Southampton 509 5NH, ENGLAND.
 PG 37. PR No Charge. JE 154, 122, 227, 212.
 KW Inflation. Price Dispersion. Canada.

AB In this paper we explore the relationship between the
 dispersion in relative consumer prices, aggregate price
 uncertainty, and inflation within the framework of the
 equilibrium price misperceptions' model of Lucas (1973).
 This has been a popular vehicle for both theoretical and
 empirical analysis of these issues. However, such studies
 never produce models which are both theory and data
 consistent: they do not satisfy the criteria of the time-
 series' econometrician, and sometimes do not even accord
 with the requirements of the sophisticated theory itself. In
 general they seek merely to confirm their hypotheses of
 interest, which usually involve some linear relationship
 between a measure of relative price variability or inflation
 uncertainty and inflation itself (e.g. see Fischer (1982),
 Blejer (1983)). The ability of the equilibrium
 misperceptions' framework to generate relationships
 between relative price variability, inflation uncertainty and
 inflation itself has been subject to careful scrutiny by
 Pagan, Hall and Trivedi (1983) Mison, Safford and
 Thomas (1986), provide an empirical implementation of
 that analysis using quarterly United Kingdom data. This
 study provides further evidence on the above relationships
 using monthly Canadian data, and reinforces our view that
 the simple classical models of Lucas (1973) and Barro
 (1976) and others can be made more relevant empirically
 by careful extensions. The paper is set out as follows:
 section I introduces the recent Canadian experience of
 relative price dispersion and inflation, together with some
 simple descriptive statistics and regressions. In section II
 we develop the equilibrium price misperceptions' model
 and analyse its empirical implementation. The final
 section discusses the generation of surprises' using an
 auxiliary system of equations and the selection of a
 preferred set of models to explain the time-path of relative
 consumer price dispersion.

PD April 1987. TI Vehicle Currencies, Bank Debt and
 the Asset Market Approach to Exchange Rate
 Determination: the United States Dollar, 1980-85.
 AU Thomas, S. H.; Wickens, M. R. AA The
 University of Southampton. SR University of
 Southampton Discussion Paper in Economics and
 Econometrics: 8707; Department of Economics, University
 of Southampton, Southampton 509 5NH, ENGLAND.
 PG 45. PR No Charge. JE 431, 312, 023.

KW Exchange Rates. Dollar. World Bank Debt. Portfolio Asset Model. Budget Deficit.

AB Increasing dissatisfaction has been expressed about the apparent inability of existing exchange rate models to explain the behaviour of the United States dollar over the period 1980-85. This has led to calls for a fundamental re-appraisal of exchange rate determination (Dooley and Isard (1986), Dornbusch (1986)). We believe that a major omission in explaining the behaviour of the United States dollar is the neglect of the use of the dollar by the rest of the world as a vehicle currency and the effect of the increase in dollar denominated world bank debt. In order to analyse the implications of these roles of the dollar, we construct a portfolio exchange rate model whose novel feature is a focus on the activities of the United States banking sector.

PD May 1987. **TI** Vehicle Currencies, Bank Debt and the Asset Market Approach to Exchange Rate Determination: The U.S. Dollar, 1980-1985. **AU** Thomas, S. H.; Wickens, M. R. **AA** University of Southampton. **SR** Centre for Economic Policy Research Discussion Paper: 180; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 45. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** 431, 433, 440, 132. **KW** Exchange Rates. International Banking. Vehicle Currencies. Debt. Capital Account.

AB This paper examines the appreciation of the dollar over the period 1980-85. The standard theories try to explain the increased demand for dollar assets by differential rates of return on bonds or by "safe-haven" arguments associated with the lower riskiness of United States assets. Neither of these explanations has proved satisfactory, however, and this has led to the search for other theories, including non-rational theories such as speculative bubbles and chartism. This paper proposes an alternative explanation, based on the role of the dollar as a vehicle currency and, in particular, the dominance of interbank transactions. It is shown that, in the years when the dollar appreciated most, changes in banks' assets and liabilities dominated the United States capital account. These were also years when United States banks were locked into large long-term foreign dollar loans to developing countries which, to make matters worse, were highly risky and often required further loans to help service the debt. Since deposits are mainly short-term and loans are long-term, the short-run demand for dollars is inelastic. In our view a decrease in the supply of dollar deposits at various times was a major cause of the dollar's appreciation. A formal model of exchange rate determination, based on the portfolio behaviour of banks, is developed and the predictions are shown to be consistent with the available evidence.

Thomson, Norman John

PD April 1987. **TI** Apportioning Revenue Sharing Grants Between the States: The Commonwealth Grants Commission Reports of 1981, 1982 and 1985. **AA** University of Adelaide. **SR** Australian National University Centre for Research on Federal Financial Relations Occasional Paper: 75; The Australian National University P.O. Box 4, Canberra, Act 2601, AUSTRALIA.

PG 19. **PR** No Charge. **JE** 325, 324, 322. **KW** Horizontal Fiscal Equalization. Public Welfare. Revenue Sharing. Grants. Relative Need. Australia.

AB Australian federation is characterised by the vertical imbalance that exists between the Commonwealth government and the States. While responsible to meet roughly half the public expenditure costs in Australia, the States raise only 16 per cent of the tax revenue. To overcome this vertical imbalance, the Commonwealth government makes annual allocations to the States in the form of general revenue grants. Unlike most other federations, Australia has embraced the concept of horizontal fiscal equalisation between the States. Thus the central government, on the independent advice of the Commonwealth Grants Commission, apportions the general revenue grants between the States on the basis of assessed expenditure need and revenue capacity. To a very large extent this is governed by 'standards' which are essentially a form of weighted average of the expenditure costs and revenue capacities of the six States. This article reviews the objectives and conclusions (some might claim 'recommendations') of the Commonwealth Grants Commission over the period 1981 to 1985; a period during which the value of the objectivity of the Commission's findings was seriously threatened by interference from political forces.

Thomson, William

TI Can Everyone Benefit From Growth? Three Difficulties. **AU** Moulin, Herve J.; Thomson, William.

Townsend, Robert M.

PD June 1986. **TI** Arrow-Debreu Programs as Microfoundations for Macroeconomics. **AA** University of Chicago and Program in Quantitative Economic Analysis/NORC. **SR** Economics Research Center/NORC Discussion Paper: 86-7; Economics Research Center/NORC, 1155 East 60th Street, Chicago, IL 60637. **PG** 78. **PR** \$2.00; Send requests to Librarian, Economics Research Center. **JE** 023, 021, 022. **KW** Arrow-Debreu Model. Microfoundations. Competitive Equilibrium Allocations. Pareto Optimality. Information.

AB The Arrow-Debreu model is often said to be operational only under such unrealistic assumptions as full information, complete markets, and no diversity. Here, however, an alternative view is argued. The Arrow-Debreu model can accommodate not only diversity in preferences and endowments but also private information, indivisibilities, spatial separation, limited communication, and limited commitment. That is, standard arguments for the existence of Pareto optimal allocations and for the existence and optimality of competitive equilibrium allocations can be shown to apply to a large class of environments with these elements. Further, stylised but suggestive models with these elements can be constructed and made operational, so that the Pareto optimal and/or competitive equilibrium allocations can be characterized. On the positive side these models deliver implications for the methods of interaction of economic agents and for the outcomes from that interaction. On the normative side the Pareto optimal or core allocations of these models allow scope for activist policy.

Turnbull, Peter J.

TI Employment in the British Coal Industry: A Test of the Labour Demand Model. **AU** Bean, Charles R.; Turnbull, Peter J.

Ulph, Alistair

PD 1987. **TI** Wage Bargaining and Adjustment to Shocks. **AU** Ulph, Alistair; Ulph, David. **AA** A. Ulph: University of Southampton. **D.** Ulph: University of Bristol. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8701; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 33. **PR** No Charge. **JE** 023, 824, 832, 026. **KW** Wages. Bargaining. Employment. Asymmetric Information.

AB In this paper we retain the assumption of symmetric information, and seek to provide an alternative way of having the wage setting process affect the response of the economy to shocks. This rests on the observation that firms can protect workers from shocks by means other than wage and employment contracts by smoothing out shocks more directly, through stock building, choice of capital stock, or choice of production structure in terms of the degree of ex post substitutability factors for example. We shall refer to this as "real smoothing", and suppose that the amount of real smoothing is also bargained over by workers and firms. As we shall show, efficient outcomes require that firms and workers bargain jointly over the amount of real smoothing and the level of wage and employment in each state of the world. Different forms of wage setting will then induce difference in the level of real smoothing chosen, and so affect the way the economy can respond to real shocks.

Ulph, David

TI Wage Bargaining and Adjustment to Shocks. **AU** Ulph, Alistair; Ulph, David.

Uy, Marilou

TI Agency Costs and the Agricultural Firm. **AU** Roumasset, James; Uy, Marilou.

Valdez, R. Burciaga

PD March 1987. **TI** An Annotated Bibliography of Sources of Mexican Immigration. **AU** Valdez, R. Burciaga McCarthy Kevin F.; Moreno, Connie Malcolm. **AA** The Rand Corporation. **SR** Rand Note: N-2392-CR; The Rand Corporation, 1700 Main Street, Post Office Box 2138, Santa Monica, CA 90406-2138. **PG** 57. **PR** No Charge. **JE** 823, 813, 841, 826. **KW** Mexico. Immigration. Migration. Mexican Americans. Immigrant Labor Market. California.

AB This Note provides a bibliography of reports, journal articles, periodicals, and statistical sources dealing with Mexican immigrants and Mexican Americans. Included are profiles of Mexican immigrants, general studies of the Mexican-heritage population, analyses of immigrant labor market characteristics and effects, studies of immigrant public service usage, and assessments of the economic and social mobility of Mexican immigrants and their children. This Note highlights some of the issues raised by the diverse literature on the Mexican population and their effects on California.

van der Ploeg, Frederick

PD April 1985. **TI** Rational Expectations, Risk and Chaos in Financial Markets. **AA** Department of Economics, London School of Economics. **SR** London School of Economics. Econometrics Programme Discussion Paper: A.57; Department of Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, ENGLAND. **PG** 21 Pages. **PR** No Charge. **JE** 310, 311, 312, 313. **KW** Bonds Market. Rational Expectations Model. Risk Aversion. Speculative Bubbles. Financial Chaos. Limit Cycles. Investor Confidence.

AB The dynamic properties of a stochastic, nonlinear rational expectations model of the bonds market are thoroughly analysed. As long as the degree of risk-aversion, the degree of risk and/or the supply of bonds are not too large, the model is unstable and a unique, convergent rational expectations trajectory exists. This is in the spirit of the saddlepoint approach to solving linear rational expectations models, because equilibrium bond prices are forward-looking variables. However, if the above effects are large enough, speculative bubbles or financial chaos result in non-explosive, non-convergent limit cycles or erratic trajectories. In such circumstances the speculators obviously have great difficulty in locating the rational expectations trajectory, so that an important task for the government is to restore confidence and/or reduce the supply of bonds.

PD March 1987. **TI** International Policy Coordination in Interdependent Monetary Economies. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 278; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 24. **PR** No Charge. **JE** 420, 430, 134, 023, 026, 423, 311, 321. **KW** Interdependent Monetary Economies. Monetary policy. Fiscal policy. International Policy Coordination. Reputation. Credibility. Time Inconsistency. Inflation.

AB A classical equilibrium model of two interdependent monetary economies with no other assets except cash, perfect foresight, flexible exchange rates and imperfect substitution between home and foreign goods is analysed. The first-best optimum sets the marginal rate of substitution between private and public goods to unity and leads to no tax distortions and the optimal quantity of money. Both non-cooperative and cooperative market-oriented outcomes are time inconsistent, since each government has an incentive to renege and levy a surprise inflation tax. International policy coordination without pre-commitment can be counterproductive even though there are no tax distortions and the provision of public goods is optimal, since it exacerbates the credibility problems perceived by the private sectors and therefore leads to a too low level of real money balances and excessive inflation. The reason is that a unilateral surprise inflation tax induces a real depreciation and leads to inflation costs, but a multilateral expansion of monetary growth does not. The typical ranking in order of decreasing welfare is first-best optimum, cooperation with pre-commitment, competition with pre-commitment, competition without pre-commitment and coordination without precommitment.

TI Monetary and Fiscal Policy in an Optimizing Model with Capital Accumulation and Finite Lives. **AU** Marini, Giancarlo; van, der Ploeg Frederick.

PD May 1987. **TI** Monopoly Unions, Investment and Employment Benefits of Contingent Wage Strategies. **AA** Centre for Labour Economics, London School of Economics, and Tilburg University. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 280; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 19. **PR** No Charge. **JE** 831, 821, 824. **KW** Monopoly Unions. Investment. Employment. Contingent Wage Contracts. Time inconsistency. Bonds. Wages.

AB The optimal wage policy of a monopoly union is time inconsistent, because once installed capital is a quasi-fixed factor and the union can demand higher wages without damaging its employment prospects too much. The consistent outcome is sub-optimal and gives rise to higher wages and lower investment and employment levels. Even when there are no stochastic shocks, the union has an incentive to announce a wage strategy contingent on the capital stock as this serves as a threat and forces the firm to modify its investment behavior. Such an optimal contingent commitment is indeterminate, unless adjustment costs are specified to allow for institutional and legal constraints on wage setting. It is inferior to the command optimum, so that it is still time inconsistent. However, when the union can build up a reputation or put up a contingent bond, the inconsistent strategy can be sustained as a credible outcome. The results are illustrated with a numerical example.

TI Real Effects of Demand- and Supply-Side Policies in Interdependent Economies. **AU** Attanasio, Orazio; van, der Ploeg Frederick.

Van, Huyck John

TI Nominally Denominated Sovereign Debt, Risk Shifting, and Reputation. **AU** Grossman, Herschel; Van, Huyck John.

van, Wijnbergen Sweder

PD December 1986. **TI** Government Deficits, Private Investment and the Current Account: An Intertemporal Disequilibrium Analysis. **AA** Trade and Adjustment Policy Division, The World Bank, United States of America. **SR** Centre for Economic Policy Research Discussion Paper: 143; 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** 023, 431, 441, 411, 824, 321. **KW** Wage Rigidities. Deficit Spending. Terms of Trade. Crowding-In. Unemployment. Intertemporal Optimization. Investment. Current Account.

AB We use a model with full intertemporal optimization and short-run rigidities in the real wage of the Fischer-Gray type to demonstrate the effects of deficit spending in different employment regimes. We allow for prices to exhibit upward flexibility, although once set at the beginning of one period they will be downwardly rigid until the beginning of the next period. We show that,

conditional on a plausible assumption about public and private sector discount rates, under Keynesian unemployment deficit spending reduces unemployment, improves the future terms of trade and therefore leads to an increase in private investment (crowding-in) and to a deterioration of the current account. Under classical unemployment, goods markets clear but unemployment persists because of contract-based real wage rigidity. Fiscal expansion then goes partly into prices (terms of trade improvement) and only partly into quantities. The latter occurs to the extent that contract based real consumption wage rigidity, coupled with a terms of trade improvement, allows a lower real product wage. A temporary increase in government expenditure in classical unemployment leads to a bigger terms of trade improvement today than tomorrow, so both income and substitution effects lead to a current account improvement. The cost of capital increases more than the value of future output and investment falls. This also improves the first period current account. The direct impact of increased first period government expenditure may offset these surprising positive effects on the first period current account. Finally we show that the more open the economy is, the larger is the output response and the smaller the price response to a fiscal expansion in the presence of classical unemployment. This contrasts with the Keynesian unemployment regime, where a higher import component in expenditure leads to more dissipation of effective demand and smaller output effects.

TI Excess Capacity, Monopolistic Competition and International Transmission of Monetary Disturbances. **AU** Svensson, Lars; van, Wijnbergen Sweder.

PD May 1987. **TI** Tariffs, Employment and the Current Account: Real Wage Resistance and the Macroeconomics of Protectionism. **AA** The World Bank. **SR** National Bureau of Economic Research Working Paper: 2261; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 431, 421, 422, 023. **KW** Open Economy. Intertemporal Optimization. Import Tariffs. Wage Rigidity. Balance of Payments. Trade Balance. Trade Barriers.

AB Using a standard complete specialization model of a small open economy within a rigorous intertemporal optimization framework with contract-based wage rigidity, we show that permanent tariffs may lead to a current account deterioration and a fall in employment, contradicting most of the literature of macro-economic effects of import tariffs. I show that this will always be the case if the economy is small enough. The crucial factor in this complete reversal of standard results is the impact of tariffs on domestic real product wages via wage indexation. Temporary tariffs will have less of a negative impact on the CA or potentially even a positive impact, because they increase the consumption rate of interest (the terms at which future consumption can be traded for current consumption) and so increase private savings. Extensions towards incorporating a more general production structure, investment and the use of tariff revenues to provide wage subsidies are presented.

Vassilakis, Spyros

TI Sraffa and Imperfect Competition. AU Newman, Peter; Vassilakis, Spyros.

Veall, Michael B.

PD June 1987. TI Econometrics/Testing for a Global Maximum. AA Department of Economics/McMaster University. SR Australian National University Working Paper in Economics and Econometrics: 146; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. PG 34. PR No Charge. JE 211. KW Random Search. Extreme Value Distribution. Multiple Maxima. Local Maxima.

AB A method proposed by Clough (1989) is adapted to the problem of testing whether a particular maximum of a likelihood function is a global rather than a local one. The method, which is based on calculating the function at a number of randomly generated points, yields an estimate of the probability of whether the maximum occurs in a particular region of the parameter space. A number of examples illustrate the procedure.

Veljanovski, Cento G.

PD April 1987. TI Cable and Satellite - The Market for Programmes. AA University College London. SR Centre for Economic Policy Research Discussion Paper: 176; 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 613, 633, 635, 621. KW Cable. Satellite. Telecommunications. Regulation. United Kingdom. Television. Telephones. Broadcasting. AB The development of cable and satellite television has not occurred as rapidly in the United Kingdom as initially anticipated. The paper examines cable and satellite policy in the context of the Peacock Report's proposals for broadcasting reform. The concept of a national telecommunications grid providing television and basic telephone services is questioned, as is the whole concept of pay-TV which lies at the heart of Peacock's recommendations. The paper presents the case for more extensive deregulation of these two sectors and proposes a positive set of reforms to accompany such deregulation.

PD April 1987. TI Commercial Broadcasting in the UK - Over-Regulation and Misregulation? AA University College London. SR Centre for Economic Policy Research Discussion Paper: 175; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 27. PR 1 pound (\$2.00) individuals; 1.50 pounds (\$3.00) companies, libraries, institutions. JE 613, 633, 635. KW Television. Regulation. Franchising. Spectrum Management. United Kingdom.

AB The regulation of commercial television and broadcasting in the United Kingdom has evolved from the principles of public service broadcasting. Much of this regulation is paternalistic and does not place great emphasis on the most effective way of regulating an industry to achieve agreed objectives. This paper takes a critical look at commercial broadcasting regulation in the light of the recent recommendations of the Peacock Committee. In particular, the objectives of broadcasting are examined, the effectiveness and desirability of

franchising is assessed, as are the present administration of the radio spectrum and the ownership restrictions imposed by the Independent Broadcasting Authority. The paper concludes with a set of further positive recommendations for the deregulation of commercial broadcasting in the UK.

Vella, Francis G. M.

TI Constructed Variables in Instrumental Variable and Two Stage Least Squares Estimation. AU Ganderton, Philip T.; Vella, Francis G. M.

Vernon, James R.

TI The Health Care Costs of Skin Cancer Caused by Ultraviolet Radiation. AU Mitchell, Bridger M.; Vernon, James R.

Voigt, B.

TI A Short Proof of the Restricted Ramsey Theorem for Finite Set Systems. AU Promel, H. J.; Voigt, B.

von Ungern, Sternberg Thomas

PD October 1986. TI Does the Swiss National Bank Stabilize the Swiss Franc Exchange Rates? AA University of Lausanne. SR Universite de Lausanne Cahiers de Recherches Economiques: 8608; Departement d'econometrie et d'economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. PG 21. PR No Charge. JE 311, 431, 211. KW Stabilization Policy. Causality. Exchange Rates. Switzerland. Central Bank. Granger Causality. Monetary Intervention.

AB Starting point of this paper is the observation that many of the Granger-causality tests for policy effectiveness that have been performed are likely to be severely biased because of omitted variables problems. An alternative procedure which does not suffer from this handicap is proposed to test for the stabilizing effect of economic policy interventions. The test is applied to test whether the Swiss National Bank's monetary interventions have managed to stabilize the Fr./\$ and the Fr./DM exchange rates. The answer is yes.

PD January 1987. TI Monopolistic Competition and General Purpose Products. AA University of Lausanne. SR Universite de Lausanne Cahiers de Recherches Economiques: 8702; Departement d' econometrie et d' economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. PG 29. PR No Charge. JE 022, 611. KW Monopolistic Competition. Homogeneous Products. Transport Costs. Product Differentiation.

AB Most models of monopolistic competition study the question of the "optimal degree of product differentiation" by looking at the number of firms that will locate in characteristics space. This is somewhat restrictive. The development of "General Purpose" products means that the needs of quite heterogeneous consumers can be satisfied with the same homogenous product. The private and social incentives to produce "general purpose" products are studied in this paper within the "circular-road-model" of monopolistic competition. The degree of general purposeness of a product is approximated by its per unit distance transport costs. It is shown that there are strong

forces leading the market to supply products, whose transport costs are excessively low.

PD February 1987. **TI** Environmental Protection with Several Pollutants: On the Division of Labour Between Natural Scientists and Economists. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 8704; Departement d'econometrie et d'economie politique, Universite de Lausanne BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. **PG** 15. **PR** No Charge. **JE** 722. **KW** Pollution Control. Environment. Emission Standards. Damage Curves.

AB In a variety of environmental problems it is only the joint presence of several pollutants and their interaction that leads to environmental damage. In situations of this kind one has to take into account the shape of the resulting iso-damage curves and their position relatively to the iso-cost curves in formulating efficient policies for environmental protection. If there are synergies between the pollutants the iso-damage curves will usually be convex, and the most efficient form of pollution control may well consist of concentrating most of one's efforts on the reduction of a subset of pollutants only. The question which pollutant should be reduced by how much can be answered only by the collaboration of natural scientists, who provide information on the trade-offs available, and the economists, who determine which of the available alternatives is the least costly to implement. This recommendation stands in marked contrast to the usual procedure where natural scientists set emission standards for each individual pollutant, without specifying the trade-offs between the various pollutants.

Von Weizsacker, Robert K.

PD April 1987. **TI** Age Structure and Income Distribution Policy. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-118; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 41. **PR** No Charge. **JE** 841, 824. **KW** Life-Earning Patterns. Demographics. Distribution Policy. Income Distribution. Age Composition.

AB The major stylised fact of observed life-earnings patterns is that earnings rise at a decreasing rate with age. A simple microeconomic model of educational choice, being consistent with this observation, is designed. The model lends itself readily to aggregation over individuals and age groups. Thus, relations can be established between economic variables influencing the aggregate distribution of labour incomes and demographic variables determining the age structure of the population. Among the results are the following two: - Overall earnings inequality is shown to be an increasing function of life expectancy and a decreasing function of fertility. - The effectiveness of redistributive policies is sensitive to the age composition. In particular, the inequality-reducing effect of a one percent income tax rise is shown to be the smaller the older the population. The present study of interrelations between age structure differentials, income inequality and distribution policy generally suggests that existing models of income dispersion should be extended to include age composition as an explanatory variable. Otherwise, the

extent of economic inequity and the impact of redistributive government actions may be misjudged.

Vousden, N.

TI Investor Portfolios and Firm Capital Structure Choice in the Presence of Taxes. **AU** Jones, C.; Vousden, N.

Wachtel, Paul

PD February 1987. **TI** The Impact of Treasury Auction Announcements on Interest Rates. **AU** Wachtel, Paul; Young, John. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 412; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10008. **PG** 17. **PR** \$3.00. **JE** 310, 023, 026. **KW** Interest Rates. Monetary Announcements. Central Bank. Government Securities. Information.

AB The market for United States government securities is widely thought to be efficient in the sense that prices rapidly respond to new information. Information concerning government financing activities and the supply of new securities is likely to be relevant to the market determination of interest rates. Our specific concern is with the Treasury's announcements of information concerning forthcoming auctions and the subsequent announcements of the auction results. In this paper we analyze the immediate market responses to the release of this information.

TI Loan Commitments and Monetary Policy. **AU** Melnick, A.; Sofianos, G.; Wachtel, P.

Wadhvani, Sushil B.

PD April 1987. **TI** Profit-Sharing and Meade's Discriminating Labour-Capital Partnerships: A Review Article. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 276; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 42. **PR** No Charge. **JE** 023, 053, 833, 820. **KW** Wages. Profit Sharing. Two-Tier Pay. Productivity.

AB Professor Meade has argued that Discriminating Labour-Capital Partnerships (DLCPs hereafter) are to be preferred to Weitzman-type profit-sharing schemes. This paper argues that: (i) Once we endogenise wages, the advantage of DLCPs over a share system in terms of investment can be illusory. Of course, under these circumstances, a share system need not exhibit short-run excess demand for labour either. (ii) The multi-tier pay structure implied by DLCPs may not be optimal from the perspective of either firms or workers. (iii) The effect of DLCPs on productivity is ambiguous. (iv) The Japanese labour market is, arguably, closer to Meade's DLCP model, than Weitzman's profit-sharing model. (v) The case for subsidising profit-related pay is far from conclusive, especially given the possibility that greater decentralisation of wage decisions can make an economy more prone to stagflation.

Waite, Linda J.

PD November 1986. TI Job Stability among Young Women: A Comparison of Traditional and Nontraditional Occupations. AU Waite, Linda J.; Berryman, Sue E. AA The Rand Corporation. SR Rand Note: N-2570-FF; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. PG 28. PR No Charge. JE 820, 810, 851, 917. KW Women. Employment. Retention Rates. Career Mobility.

AB This note explores young women's retention in sex-atypical jobs in the military and in civilian firms. It develops hypotheses about the effects on one-year turnover of sex composition of the occupation in the national labor force. These hypotheses were drawn from several theoretical perspectives on career mobility and the effects of out-group membership on acceptance. Tests of these hypotheses, using data from the National Longitudinal Survey of Youth Labor Market Behavior, provide no evidence that being in a nontraditional occupation increases the chances that a young woman will leave her current employer. The military sector shows a more complex relationship between occupational typicality and women's exit from the services.

Waldman, Michael

TI Limited Rationality and Synergism: The Implications for Macroeconomics. AU Haltiwanger, John C.; Waldman, Michael.

TI Responders Versus Nonresponders: A New Perspective on Heterogeneity. AU Haltiwanger, John; Waldman, Michael.

TI Rational Expectations in the Aggregate. AU Haltiwanger, John; Waldman, Michael.

TI Border Enforcement Versus Internal Enforcement: A Study in the Economics of Illegal Migration. AU Ozler, Sule; Waldman, Michael.

Watson, Mark W.

TI Interpreting the Evidence on Money-Income Causality. AU Stock, James H.; Watson, Mark W.

Weber, G.

TI A Set of Preliminary Estimates of a Small Model of the British Economy. AU Sargan, J. D.; Weber, G.

TI Money, Inflation and Unemployment: An Econometric Model of the Keynes Effect. AU Desai, Meghnad J.; Weber, Guglielmo.

Weiss, Andrew A.

PD December 1986. TI A Comparison of Ordinary Least Squares and Least Absolute Error Estimation. AA University of Southern California. SR University of Southern California Modelling Research Group Working Paper: M8648; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 27. PR No Charge. JE 211. KW Ordinary Least Squares. Least Absolute Error Estimation. Heteroskedasticity. Hypothesis Testing. Generalized Method of Moments Test.

AB In a linear dynamic model with heteroscedastic errors, we compare some aspects of ordinary least squares

and least absolute error estimation. After deriving the properties of the estimators and the Wald, Lagrange multiplier and Likelihood ratio tests under a local alternative, we derive the Hausman test comparing the estimators. From this, and the equivalent generalised method of moment tests, we obtain as special cases tests for specification and symmetry based on the signs of the residuals from ordinary least squares. We also show that in the presence of heteroscedasticity, asymmetry can affect the estimates of all the parameters, not just the constant term.

Weldon, F.

TI Relative Price Variability, Aggregate Price Uncertainty and Inflation in Canada. AU Thomas, S. H.; Weldon, F.

West, Kenneth D.

PD February 1987. TI On the Interpretation of Near Random Walk Behavior in GNP. AA Woodrow Wilson School of Public and International Affairs, Princeton University. SR Princeton Woodrow Wilson School Discussion Paper in Economics: 124; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. PG 17. PR No Charge. JE 131, 132, 311, 023. KW Consumption Function. Variability. Liquidity Constraints. Gross National Product. ARIMA. Unit Root. Monetary Policy. Business Cycles.

AB It is shown that Gross National Product will have an autoregressive root very close to unity in a variant of Taylor's (1980a,b) overlapping wage contracts model, for stylized versions of simple money supply rules and plausible values for the model's parameters. In this variant, monetary policy is the only reason for serial correlation in GNP. It is premature, therefore, to conclude, as some authors have, that the presence of such a root in United States GNP is inconsistent with either natural rate theory or with monetary policy playing a major role in the business cycle.

PD May 1987. TI The Insensitivity of Consumption to News About Income. AA Princeton University. SR National Bureau of Economic Research Working Paper: 2252; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PR \$2.00. JE 023, 212. KW Variance Bounds Test. Permanent Income Hypothesis. Unit Roots. Consumption. AB This paper uses a variance bounds test to see whether consumption is too sensitive to news about income to be consistent with a standard permanent income model, under the maintained hypothesis that income has a unit root. It is found that, if anything, consumption is less sensitive than the model would predict. This implication is robust to the representative consumer having private information about his future income that the econometrician does not have, to wealth shocks, and to transitory consumption. This suggests the importance in future research on the model of allowing for factors that tend to make consumption smooth.

Whitbread, Chris

TI Explaining Changes in the Union Mark-up for Male Manual Workers in Great Britain, 1953-1983. AU Beenstock, Michael; Whitbread, Chris.

White, Halbert

TI Efficient Instrumental Variables Estimation of Systems of Implicit Heterogeneous Nonlinear Dynamic Equations with Nonspherical Errors. AU Bates, Charles; White, Halbert.

PD April 1987. **TI** Some Asymptotic Results for Learning in Single Hidden Layer Feedforward Network Models. AA University of California at San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 87-13; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PG** 54. **PR** No Charge. **JE** 211. **KW** Nonlinear Regression. M-Estimators. Recursive Estimation. Neural Networks. Back Propagation.

AB In this paper we investigate the method of back propagation proposed by Rumelhart, et al. '1986 for learning in feedforward network models with a single hidden layer. We show that back propagation can be viewed as an application of the method of stochastic approximation to the problem of estimating the parameters of a particular misspecified nonlinear regression function by the method of least squares. This allows well known results from the stochastic approximation literature to be applied to establish consistency, rates of convergence and asymptotic normality for back-propagation estimators. These results lend insight into the choice of the learning rate and into the asymptotic performance of the system. We also propose a method of consolidating the learning achieved by the system, based on taking a Newton-Raphson nonlinear least-squares step from the back-propagation estimator. This step yields an estimator asymptotically efficient relative to the back-propagation estimator which is also asymptotically equivalent to the nonlinear least squares estimator for the misspecified nonlinear regression model. Well known results on the consequences and detection of misspecification in nonlinear regression models apply immediately, yielding a variety of techniques useful in assessing the model's performance, and in finding ways to improve it. The results are obtained as corollaries to results for a recursive m-estimator and a two-step m-estimator which may be of independent interest.

Wickens, M. R.

TI Vehicle Currencies, Bank Debt and the Asset Market Approach to Exchange Rate Determination: the United States Dollar, 1980-85. AU Thomas, S. H.; Wickens, M. R.

TI Vehicle Currencies, Bank Debt and the Asset Market Approach to Exchange Rate Determination: The U.S. Dollar, 1980-1985. AU Thomas, S. H.; Wickens, M. R.

Wildasin, David A.

TI Tax-Transfer Policies and the Voluntary Provision of Public Goods. AU Boadway, Robin W.; Pestieau, Pierre; Wildasin, David A.

Winters, Alan L.

PD March 1987. **TI** Patterns of World Trade in Manufactures: Does Trade Policy Matter? AA Department of Economics, University College of

North Wales. **SR** Centre for Economic Policy Research Discussion Paper: 160; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** 411, 421, 422, 121. **KW** Manufactured Trade. Trade Policy. Developing Countries. Non-tariff Barriers. World Trade. NICs. Comparative Advantage.

AB This paper surveys the broad patterns of world trade in manufactures since about 1960. While the bulk of manufactured exports came initially from relatively few large industrial countries, developing countries have encroached seriously upon their markets in recent years. The newly industrialized countries have accounted for most of this competition, but a "second tier" of developing country exporters is growing up. The paper examines various explanations for the pattern of trade. Comparative advantage, based on factor endowments, appears to be the major determinant, although technical change may be modifying its effects. Trade policy was once important, but now probably has relatively little effect on the broad pattern of trade: tariffs are mostly low, and non-tariff barriers, while affecting particular flows significantly, are only just beginning to affect the broad patterns. Finally, Japanese trade in manufactures may be explained by comparative advantage. There is no need to appeal to alleged restrictive trade policies.

Woo, Wing T.

PD March 1987. **TI** What Kind of Structural Adjustment Policies for U.S. Trade Difficulties? AA University of California at Davis. **SR** University of California at Davis Research Program in Applied Macro and Macro Policy: 41; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 42. **PR** No Charge. **JE** 431, 421, 322, 321, 311, 133, 422. **KW** Trade Policy. Foreign Industrial Targeting. Structural Adjustment. Budget Deficits. Macroeconomic Policy Mix. Trade Balance. Exchange Rates. Exports. Trade Barrier.

AB The evidence show that up to 1980, there is no support for either the proposition that labor has been increasingly shifted to low-wage industries, or the proposition that the composition of United States exports has gotten more low-tech compared to the other major industrial countries. The absence of a trend in either case, even though our competitors allegedly have been pursuing industrial policies since the 1950s, suggests that foreign industrial policies are not responsible for our present trade deficits. The trade deficits in 1984 and 1985 are historic highs, and they result from the historically unprecedented high values of the real exchange rate. What is the reason for the large appreciation of the dollar? The mechanism is high United States interest rates, and the underlying cause is the gargantuan United States budget deficits which the Federal Reserve Board has refused to monetise. We make three policy recommendations to ameliorate the situation in the trade sector. (i) The Macroeconomic Policy Mix: Congress must bite the bullet of raising taxes and cutting spending. The cutback in public borrowing and the subsequent easing of monetary policy to replace the fiscal stimulus would depreciate the exchange rate. (ii) Agricultural Exports: Instead of trying to twist our

economic structure to export more high-tech industrial goods, we should concentrate on reducing the foreign trade barriers to the exports of our most productive sector, agriculture. (iii) Trade Negotiations: Given the slow progress of GATT negotiations, the United States should seek bilateral reduction in trade barriers to take advantage of the fact that the various countries assign different political weights to the different trade obstacles.

PD April 1987. **TI** The Dead Hand of History in Indonesian Economic Policymaking. **AA** University of California at Davis. **SR** University of California at Davis Research Program in Applied Macro and Macro Policy: 43; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 46. **PR** No Charge. **JE** 045, 122, 123, 321, 422. **KW** Political Economy. Policy Choice. Indonesia. Poverty. Rural Development. Regional Equity. Political Stability. Export Promotion.

AB This paper provides an overall view of the political economy aspects of Indonesian economic management. We identify two often conflicting viewpoints associated with two groups of competing economic advisors – the technocrats under Professor Widjojo and the technicians under Dr. Habibie. The technocrats tend to favor market-oriented policies while the technicians are more inclined to extend a helping hand to the market mechanism in allocating resources. Because of the technocrats' acceptance of the comparative advantage principle, they are concerned with the promotion of the agricultural sector and of export-oriented industries. The economic program of the technocrats finds favor with the President because it addresses his political concerns for raising rural income and for maintaining equitable treatment toward the main islands. Part 3 of the paper examines the rural-urban and inter-island equity aspects of Indonesian fiscal policy. The evidence argues against a total urban bias because the first programs to be financed by the 1973 and 1979 increases in oil revenue were targetted toward the rural population. What emerges strongly from the budget allocation is that inter-island equity takes precedence over rural-urban equity. This is because the concern for rural development is based more on eradication of poverty rather than on narrowing of the rural-urban gap. The comparison of Indonesia with Mexico and Nigeria in Part 4 reinforces the previous impressions. Indonesian economic policy is sensitive to rural poverty and to regional equity because it coincides with the goal of political stability and with the President's personal commitment to rural development.

Wood, Robert O.

TI Arbitrage Costs and the Efficiency of the Dollar-Sterling Gold Standard, 1899-1908: An Econometric Perspective. **AU** Spiller, Pablo T.; Wood, Robert O.

Worrell, DeLisle

PD July 1986. **TI** Adjustment Policies In Small Open Economies. **AA** Visiting Fellow at Yale University. **SR** Yale Economic Growth Center Discussion Paper: 509; Economic Growth Center, Yale University, Box 1987 Yale Station, New Haven, CT 06520. **PG** 64. **PR** \$2.00. **JE** 121, 133, 431, 047. **KW** Caribbean. Economic Instability. Political Instability. Oil Crisis.

Interest Rates. Exchange Rates.

AB Looking at the economic fortunes of the English-speaking Caribbean over the last fifteen years, we find that countries with the greatest promise have had a record of chronic instability. This paper tries to discriminate between the impact of unsettled world economic conditions and of domestic economic policies on the outcome for individual countries. We measure the impact of oil crises, world stagflation, interest rate variability and exchange rate uncertainty. We find that the performance of the world economy curtailed growth prospects everywhere in the Caribbean and increased the difficulty of economic management for all countries. Though the impact of world conditions varied greatly from country to country, that external influence does not account for the variety of performance. The extent of economic deterioration seems more closely related to the policies governments undertook in reaction to the changed external circumstances. In general, less adventurous policies seemed to have been more helpful or less damaging.

Wright, Brian D.

TI Alternative Strategies for Trade Policy Reform. **AU** Rausser, Gordon C.; Wright, Brian D.

Wu, Chia Shyan

TI Graphs Whose Cycles are of Length r Modulo k . **AU** Chang, Gerard J.; Wu, Chia Shyan.

Yannelis, Nicholas C.

TI Core-Walras Equivalence in Economies with a Continuum of Agents and Commodities. **AU** Rustichini, Aldo; Yannelis, Nicholas C.

Younes, Yves

PD February 1987. **TI** Asymmetric Participation of Economic Agents to Market Structures. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8709; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 23. **PR** 20 FF. **JE** 022, 021, 020. **KW** Commodity Bundles. General Market Structures. Asymmetric Participation. Demand Functions. Slutsky Matrix.

AB When economic agents have an asymmetric access to an incomplete market structure, the usual methods do not allow to deduce from classical assumptions the required properties of the demand functions near the boundary and that of the Slutsky matrix. With the methods which are presented in this study, it is possible to solve these problems, when the market structure is assumed to be regular. (in French).

Young, John

TI The Impact of Treasury Auction Announcements on Interest Rates. **AU** Wachtel, Paul; Young, John.

Zame, William

TI The Consumption-Based Capital Asset Pricing Model. **AU** Duffie, Darrell; Zame, William.

Zeitlin, Jonathan

PD February 1987. **TI** From Labour History to the

History of Industrial Relations. AA Department of History, Birkbeck College, London WC1E 7HX. 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 833, 831, 044, 631, 822. KW Industrial Relations. Labor Unions. Institutional Forces. Social Groups. Worker-Employer Relations. Britain. United Kingdom.

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.

Zilcha, Itzhak

TI Aggregate and Distributional Effects of Social Security. AU Karni, Edi; Zilcha, Itzhak.