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.)

Abel, Andrew B.

PD July 1986. **TI** The Failure of Ricardian Equivalence Under Progressive Wealth Taxation. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 1983; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323, 023. **KW** Ricardian Equivalence. Estate Tax. Lump-Sum Tax. Progressive Wealth Taxation.

AB Although the Ricardian Equivalence Theorem holds under a linear estate tax schedule, it fails to hold under a nonlinear estate tax schedule. In a representative consumer economy, a temporary lump-sum tax increase reduces contemporaneous consumption. If different consumers face different marginal estate tax rates because they leave bequests of different sizes, a lump-sum tax increase redistributes resources from consumers in low marginal estate tax brackets to consumers in high marginal estate tax brackets; aggregate consumption may rise, fall, or remain unchanged. These departures from Ricardian Equivalence hold more generally under any nonlinear tax on saving, wealth or income accruing to wealth.

Acharya, Sankarshan

PD September 1986. **TI** A Generalized Model of Rational Stock Price Reaction to Corporate Policy Announcement. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 398; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 58. **PR** $3.00. **JE** 313, 511, 521. **KW** Corporate Policy Announcements. Stock Price.

AB A corporate policy announcement event is shown to be an outcome of rational decisions of managers and beliefs of investors. A new model is developed for estimating the equilibrium expected abnormal stock price response to such an event. This price response is shown to be (a) rational in the sense that the unconditional expectation of the abnormal price response is zero, (b) unique and (c) estimable. The expected abnormal price response to a partially anticipated event measured in the earlier event study models is shown to be inconsistent with rationality. Possibility of incorrect inference in the earlier models is illustrated by estimating and testing for significance of expected abnormal stock price reaction to convertible bond call announcement (postponement) using the new model and an earlier model.

PD September 1986. **TI** Why are Convertible Bonds Called "Late"? Test of the Signalling Hypothesis. **AA** Graduate School of Business Administration, New York Administration. **SR** New York University Salomon Brothers Center Working Paper: 397; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 35. **PR** $3.00. **JE** 521, 313. **KW** Convertible Bond Call Actions. Call Announcement. Signalling Hypothesis.

AB If corporations follow the optimal convertible bond call policy predicted in the past literature, then their call behaviour should be fully anticipated by the investors. On the contrary, this paper finds evidence that (a) the observed convertible bond call actions of corporations, as characterized by both call announcement and call postponement, are not fully anticipated events and (b) while the call announcement is negatively priced the call postponement is positively priced. These results lead us to an information based hypothesis that rationalizes these empirical phenomena and explains why convertible bonds are called "late." A recently expounded hypothesis claims to explain the observed convertible call behaviour by suggesting that call announcement (postponement) is a credible signal for low (high) future earnings of the corporation. We test and find supportive evidence for the implications of this hypothesis particularly the one that ensures that the call policy is a credible signal.

Acton, Jan Paul

PD December 1984. **TI** Projecting Response to Time-of-Day Electricity Rates. **AU** Acton, Jan Paul; Park, Rolla Edward. **AA** Rand. **SR** Rand Note: N-2041-MD; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PR** No Charge. **JE** 723, 022, 613. **KW** Electricity Pricing Structure. Time-of-Day Pricing. Welfare Changes.

AB This Note illustrates several methods for projecting the effects of changes in electricity price structure, using tariffs recently introduced in Maryland as examples. For business customers, the effect of time-of-day rates on load shape is projected based on a sample of 6000 United States industrial and commercial firms. Projected changes in relative peak load range from 0 to 2 percentage points for business customers in Maryland. For residential customers, the effects of rate flattening and of time-of-day rates are projected based on data from the Los Angeles Rate Experiment. Projected changes in consumption, bills, and economic welfare are small for residences consuming less than 1000 kilowatt hours per month; modest gains in welfare are projected for larger customers.

PD May 1985. **TI** The Economics of Bulk Power Exchanges. **AU** Acton, Jan Paul; Besen, Stanley M. **AA** Rand. **SR** Rand Note: N-2277-DOE; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 68. **PR** No Charge. **JE** 613, 723. **KW** Utility Regulation. Electricity Supply. Bulk Power Exchanges.
AB Utilities exchange electricity with one another in order to increase operating efficiency and system reliability. At present, the Federal Energy Regulatory Commission regulates the prices charged by privately owned utilites for the sale or transmission of bulk power. There is now increased interest in relaxing the regulation of such trades, and permitting market forces to constrain prices. In order to identify the factors that must be present for the wholesale electricity market to function efficiently, this Note examines the economics of bulk power market exchanges and analyses the effects of regulation on the incentives to exchange power. It explores the possibility that relaxing regulation of wholesale transactions may promote increased efficiency in electricity supply; discusses the economics of coordination among utilities; examines how current incentives, regulations, and institutions affect trades; and considers how new arrangements, or modified regulation, might cause changes.

PD October 1985. **TI** Regulation, Efficiency, and Competition in the Exchange of Electricity - First-Year Results from the Federal Energy Regulatory Commission Bulk Power Market Experiment. **AU** Acton, Jan Paul; Besen, Stanley M. **AA** Rand. **SR** Rand Report: R-3301-DOE; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 132. **PR** No Charge. **JE** 613, 723. **KW** Regulation. Exchange of Electricity. Federal Energy Regulatory Commission. Bulk Power Market Experiment.
AB This report presents the results of Rand's analysis of data from the first year of the Federal Energy Regulatory Commission's (FERC) Southwest bulk electric power market experiment. In successive sections, the authors describe current FERC regulation of transactions among electric utilities; develop a simple conceptual model of the economics of bulk power exchanges; discuss the effects of current regulation on the behavior of utilities in this model; describe the six utilities participating in the FERC experiment; and present efficiency and competitive analyses based on a paradigm of a hypothetical competitive and frictionless market consisting of the six participating utilities. The authors report mixed findings with respect to efficiency, and inconclusive results of the analysis of competitiveness. They suggest that refining the analytic technique and analyzing the second year of experimental data will be beneficial.

Adelman, Irma

PD July 23, 1986. **TI** The Application of General Equilibrium Models to Analyze United States Agriculture. **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: 423; Department of Agricultural and Resource Economics, 207 Giannini Hall University of California, Berkeley, CA 94720. **PG** 45p. **PR** $9.00. **JE** 021, 711, 222. **KW** General Equilibrium Models. United States Agriculture. Input-Output Models. Social Accounting Matrix (SAM) Multipliers.
AB This study starts from a Social Accounting Matrix (SAM) based on 1982 United States data, using a sector aggregation designed for examining agriculture. Multipliers are derived which measure the impact on demand and institutional incomes of changes in government expenditure and exports. To explore the nature of intersectoral and inter-institutional structure, a multiplier decomposition is derived which separates the total multiplier into components measuring the contribution of input-output linkages and net-SAM linkages. The decomposition calculations indicate that leakages from agriculture to the rest of the economy are very large and that leakages back into agriculture from the rest of the economy are very small. Input-output effects typically account for only 15 percent of the overall multiplier on agricultural gross output. Policy experiments with increases in agricultural exports, income increases in agriculture resulting from transfers, increases in nonagricultural exports, and increases in economywide household incomes are presented. We find that increases in agricultural value added are most sensitive to transfers, next most to agricultural exports, and least to measures designed to improve economywide prosperity. Extensions of the SAM framework to a Computable General Equilibrium model are discussed. We conclude that such an extension is a desireable next step in the research agenda.

Aigner, Dennis J.

PD November 1985. **TI** Sample Design Considerations for Telephone Time-of-Use Pricing Experiments with an Application to OTC-Australia. **AU** Aigner, Dennis J.; Fiebig, Densil G. **AA** Aigner: Department of Economics, University of Southern California. Fiebig: Department of Economics, University of Sydney. **SR** University of Southern California Modelling-Research Group Working Paper: 8527; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 49. **PR** No Charge. **JE** 215, 613. **KW** Time-Of-Use Pricing. Pricing Experiment. Communication.
AB While time-of-use (TOU) pricing is commonplace in the United States both for intracontinental and overseas calls, in Australia overseas calls are still priced according to a flat rate. How customers would respond to a TOU rate for overseas calls now and in the near-term future is a question whose answer is important for purposes of tariff design, system capacity planning, and revenue projection. This paper develops the framework for designing a pricing experiment to answer the question posed. Building on similar work for the design of experiments in TOU-pricing for electricity, it relies on notions of optimum or model-based design in order to economize on observations in the setting of a stratified sample. A numerical illustration is provided that explores several design alternatives for the proposed Australian experiment.

PD December 1985. **TI** On the Optimal Experimental

Design for Error Components Models. **AU** Aigner, Dennis J.; Balestra, Pietro. **AA** Aigner: Department of Economics, University of Southern California. Balestra: Department d'econometrie, Universite de Geneve. **SR** University of Southern California Modelling-Research Group Working Paper: M8531; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 20. **PR** No Charge. **JE** 215. **KW** Error Components. Social Experiment.

AB Social experiments are characterised by their high cost. A tempting alternative to the establishment of a contemporaneous statistical control group is pre-experiment observation of the treatment group. In this paper we analyse the trade-off between these two types of experimental "control" as a function of their relative costs and information content in the context of a simple two-period error components framework, where the allocation of observations across the two groups is always done in an optimal manner. Solutions for the optimal proportion of the sample to be devoted to a contemporaneous group are presented and their behavior as a function of relevant parameters is studied.

Aizenman, Joshua

PD August 1986. **TI** Labor Markets and the Choice of Technology in an Open Developing Economy. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 1998; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 820, 112. **KW** Labor Markets. Choice of Technology. Open Developing Economy.

AB This paper highlights economic factors determining the choice of technology and openness in an intertemporal context in the presence of institutional constraints in the labor market. It considers the case in which a "more aggressive" development strategy involves an investment in a modern technology. This technology raises the degree to which real wages and productivity depend on external factors while at the same time it also raises the expected value of real income. In the absence of such investment, production takes place in a traditional sector, using a technology that limits exposure to external shocks. The analysis evaluates the dependence of the choice of technology on the volatility of the shocks affecting the economy, the expected productivity gains, the investment cost associated with the modern technology, and the attitude towards risk. It starts with a benchmark case of a flexible wage/employment economy. The dependence of openness, investment, and real wages on the attitude towards risk is derived for such an economy. The paper then proceeds to analyse the implications of departures from the benchmark model. Specifically, it evaluates the effects of minimum wage policy on the choice of technology. It is demonstrated that institutional constraints in the labor market tend to discourage adoption of new technologies. The importance of this effect depends on the volatility of the underlying shocks. A rise in the volatility tends to be associated with a drop in the degree to which a given institutional structure constrains the move to the new sector. Thus, turbulent periods provide opportunities for structural shifts in favor of the new sector. The analysis assesses both the positive aspects of policies and the welfare costs associated with departures from fully flexible labor markets. It also discusses the interaction between institutional structure of the labor market and the use of protective measures that attempt to reduce exposure to external shocks.

Allen, Roy E.

TI Government Intervention in United States Agriculture and Manufacturing. **AU** Babcock, Bruce; Allen, Roy E.; Schmitz, Andrew.

Alpert, Bernard

TI Attributes of Successful MBAs: A Twenty-Year Longitudinal Study. **AU** Harrell, Thomas W.; Alpert, Bernard.

Alston, Julian M.

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

TI A Note on Causality Between Money, Wages, and Prices in Australia. **AU** Chalfant, James A.; Alston, Julian M.

PD July 22, 1986. **TI** Weak Separability and a Test for the Specification of Income in Demand Models With an Application to the Demand for Meat in Australia. **AU** Alston, Julian M.; Chalfant, James A. **AA** Alston: Victorian Department of Agriculture, Australia. Chalfant: 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: No 421; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 28p. **PR** $5.60. **JE** 921, 711, 211. **KW** Demand Models. Demand for Meat. Elasticity Estimates. Separability.

AB Most studies of the demand for meat in Australia have used some measure of total income but two recent studies have assumed weak separability of a meat group and used expenditure on the meat group instead. These specification differences are of interest to the extent that they affect goodness-of-fit, elasticity estimates, predictive performance, or hypothesis tests. In this paper, nonnested test procedures are used to test the alternative specifications of the income variable and the hypothesis of separability. The results favor use of an income variable implied by separability but are mixed concerning whether separability holds.

Anderson, Simon

PD February 1986. **TI** Market Equilibrium and Optimal Product Diversity: A Logit Specification. **AU** Anderson, Simon; de Palma, Andre. **AA** Anderson: Centre for Operations Research and Econometrics, Universite Catholique de Louvain. de Palma: Queen's University and Universite Libre de Bruxelles. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8608; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 41. **PR** No Charge. **JE** 022, 024, 921, 611. **KW** Logit Consumer Choice Model. Product

Differentiation. Monopolistic Competition. Optimal Product Diversity. Social Surplus Analysis.
AB This paper has two major objectives. Firstly, we present the logit model of discrete consumer choice and apply it to an oligopoly model of product differentiation. It is argued that the logit is a particularly suitable functional form for both its analytical tractability, its flexibility and the intuitive appeal of the comparative static results. Furthermore, the model can be interpreted either in the spirit of the spatial approach to product differentiation or in terms of the representative consumer approach. The second objective is to reconsider the question of monopolistic competition and optimal product diversity. Social surplus analysis is shown to be relatively simple with this formulation. In contrast to the frequently used CES functional form for utility, the second-best optimum and free entry equilibrium do not coincide (although they are "close") in the logit model. The free entry equilibrium product range is greater than or less than the social optimum, depending on cost and demand conditions and the degree of heterogeneity of consumer tastes. If the market provides "too many" products, then the difference between equilibrium and first-best optimal product diversity is negligible. However, when the market solution yields "too few" products, the market may seriously under-provide diversity. The market may indeed offer none of the product in question, yet the social optimum would call for a large variety.

PD March 1986. **TI** Equilibrium Existence in the Linear Model of Spatial Competition. **AA** CORE, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8613; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 16. **PR** No Charge. **JE** 022, 941, 026. **KW** Spatial Competition. Location-Price Equilibrium.
AB In the context of the Hotelling model of spatial competition with a more general specification of transport costs, it is shown that equilibrium in the location-price game exists only under very stringent conditions. These conditions are the conditions for profits to be concave in price for given locations. Furthermore, a price equilibrium for given locations may exist even when firms are close, but may not as firms move apart.

Andrews, Donald W. K.

PD August 1986. **TI** Power in econometric applications. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 800; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. **PG** 54. **PR** No Charge. **JE** 211. **KW** Power Function. Hypothesis Tests. Inverse Power Function.
AB This paper is concerned with the use of power properties of tests in econometric applications. Power radius and inverse power functions are defined. These functions are designed to yield summary measures of power that facilitate the interpretation of test results in practice. Simple approximations are introduced for the power radius and inverse power functions of Wald, likelihood ratio, Lagrange multiplier, and Hausman tests. These approximations readily convey the general qualitative features of the power of a test. Examples are provided to illustrate their usefulness in interpreting test results.

Andrews, Martyn

TI A Disaggregated Disequilibrium Model of the Labour Market. **AU** Nickell, Stephen; Andrews, Martyn.

Ann, Tan Boon

PD December 1983. **TI** Age At Menarche In Peninsular Malaysia: Time Trends, Ethnic Differentials, And Association With Ages At Marriage and at First Birth. **AU** Ann, Tan Boon; Othman, Ramli; Butz, William P.; DaVanzo, Julie. **AA** Rand. **SR** Rand Paper: P-7098; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 18. **PR** No Charge. **JE** 841. **KW** Age at Menarche. Malaysia.
AB This paper reports the associations between the age at menarche of Malaysian girls and several family-level factors, using respondent-reported recall data from the 1976-1977 Malaysian Family Life Survey. These data are the first to document trends in age at menarche in Malaysia, before and during the period of rapid socioeconomic development. Using multiple regression technique, it was shown that age at menarche is a significant correlate of ages at first marriage and first birth and that inferences about the associations between socioeconomic correlates and age at marriage and at first birth can be biased if age at menarche is not controlled. Some important implications emerged: The average age at menarche declined between 1925 and 1960 and further declines can be expected. The falling ages at menarche might justify the introduction of family life education at earlier ages. This study illustrates further that long-term quality recall data can be useful for documenting average trends and differentials.

Arnott, R.

PD August 28, 1986. **TI** Departure Time and Route Choice for Routes in Parallel. **AU** Arnott, R.; de Palma, A.; Lindsey, R. **AA** Arnott and de Palma: Queen's University. Lindsey: University of Alberta. **SR** Queen's Institute for Economic Research Discussion Paper: 658; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 43. **PR** $2.50 Canada; $3.00 United States; $3.50 foreign. **JE** 933, 615. **KW** Departure Time. Route Choice. Routes in Parallel.
AB Early studies of peak-period traffic congestion generally ignored the departure time decision of road users. This oversight was remedied by Vickrey '1969 and Hendrickson and Kocur '1981, who derived the departure rate along a single route subject to queuing congestion as the outcome of individual utility maximisation. Arnott et al. '1985 extended their work, examining alternative tolling schemes and deriving rules for optimal capacity. This paper further extends these analyses to a simple network of routes in parallel.

Artis, M.

PD May 1986. **TI** Currency Substitution in a Two-Asset - Two Country Model. A Simulation Approach. **AU** Artis, M.; Gaziouglu, S. **AA** Artis: Manchester

University, Manchester. Gasioglu: Birkbeck College, London. **SR** Centre for Economic Policy Research Discussion Paper: 107; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 63. **PR** 1 pound sterling ($2) individuals; 1.50 pound sterling ($3) companies, libraries, institutions. **JE** 023, 133, 134, 423, 431. **KW** Currency Substitution. Two-Country Model. Exchange Rate Volatility. Overlapping Wage Contracts. Overshooting.
AB The paper reports results obtained from the simulation of a two-country model in which the real and financial sectors are integrated under an assumption of rational expectations and steady-state inflationary equilibria. The government of each country issues a single financial asset ("currency") which is held by the government of the other country and by the private residents of both countries. The model is simulated under a variety of shocks and the effects of "higher currency substitution" (measured in different ways) are explored. The results show that, dependent on the shock hitting the system and the way in which the degree of currency substitution is measured, higher levels of currency substitution may reduce instead of increasing the degree of exchange rate overshooting and may even convert overshooting into undershooting. The paper lays a basis for various extensions which will be reported in subsequent papers.

Babcock, Bruce

PD May 16, 1986. **TI** Government Intervention in United States Agriculture and Manufacturing. **AU** Babcock, Bruce; Allen, Roy E.; Schmitz, Andrew. **AA** Bobcock: University of California at Berkeley. Allen: Saint Mary's College. Schmitz: 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: 415; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 22 p. **PR** $4.40. **JE** 713, 422, 631, 616. **KW** Government Intervention. United States Agriculture. United States Manufacturing. Deficiency Payment Programs. Support Prices. Subsidies. Import Quotas.
AB It is the purpose of this paper to examine the relative costs of policies used to protect domestic industries in competition with foreign imports versus protection measures to help domestic industries which are export oriented. To accomplish this, the theories of import quotas and support prices are first reviewed. Then, numerical estimates of the economic costs of farm policies which subsidise producers of corn, wheat, and rice are calculated. The same is done for the import quotas on steel, cars, and sugar. Finally, a comparison of the economic costs is made. The cost of deficiency payment schemes is shown to be relatively small compared to those associated with quota protection.

Backus, David

PD September 17 1986. **TI** Credible Disinflation in Closed and Open Economies. **AU** Backus, David; Driffill, John. **AA** Backus: Queen's University. Driffil: University of Southampton. **SR** Queen's Institute for Economic Research Discussion Paper: 660; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 25. **PR** $2.50 Canada; $3.00 United States; $3.50 foreign. **JE** 023, 134, 311. **KW** Disinflation. Rational Expectations. Consistent Policy. Staggered Contracts.
AB We examine the credibility of disinflationary policy in an economy with staggered wage contracts. The source of the government's credibility problem is the dynamic inconsistency of the optimal plan. If the government cannot commit its future actions, then the optimal plan is not credible. We argue that the best the government can do in these circumstances is to follow the best consistent policy, which we compute as the perfect equilibrium to a game between the government and private-sector wage setters. Comparison of the optimal and consistent policies indicates that the latter can be considerably more costly, and may involve both greater loss of output and slower disinflation. We argue that this provides a partial explanation for the large sacrifice ratios apparent in time series data. In an open economy the ability to manipulate the exchange rate makes cheaper disinflation possible, but most of these benefits evaporate when the government is restricted to consistent plans.

Bagozzi, Richard P.

PD October 1986. **TI** On the Evaluation of Structural Equation Models. **AU** *Bagozzi, Richard P.*; Yi, Youjae. **AA** Bagozzi: Graduate School of Business, University of Michigan. Yi: Graduate School of Business, Stanford University. **SR** Stanford Graduate School of Business Research Paper: 909; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 49. **PR** No Charge. **JE** 212, 211. **KW** Structural Equation Models. Latent Variables. Validity Generalization. Cross-Validation. Model Evaluation.
AB Criteria for evaluating structural equation models with latent variables are defined, critiqued, and illustrated. An overall program for model evaluation is proposed based upon an interpretation of converging and diverging evidence. Model assessment is considered to be a complex process mixing statistical criteria with philosophical, historical, and theoretical elements. Inevitably, the process entails some attempt at reconcilation between so-called objective and subjective norms.

Balestra, Pietro

TI On the Optimal Experimental Design for Error Components Models. **AU** Aigner, Dennis J.; Balestra, Pietro.

Balke, Nathan S.

PD August 1986. **TI** The Estimation of Prewar Gross National Product Volatility, 1869-1938. **AU** Balke, Nathan S.; Gordon, Robert J. **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper: 1999; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 042, 131, 023. **KW** Prewar Gross National Product Volatility. Business Fluctuations.
AB New evidence is provided to assess the recent controversy regarding the volatility of real economic activity before 1929 relative to the period since World War II. Some recent work claims that the longstanding stylized

fact of greater prewar volatility is "spurious". In contrast, this paper reconfirms the greater amplitude of business fluctuations prior to the Great Depression. The basic technique is the regression method, which estimates equations for real Gross National Product during 1909-38, with one or more explanatory variables for components of Gross National Product, and then uses the estimated coefficients to "backcast" real Gross National Product for the period 1869-1908. The paper contains an extensive examination of the sensitivity of these regression indexes to alternative dependent variables, sample periods, detrending methods, and the inclusion of alternative explanatory variables. Particular attention is paid to the conflicting evidence regarding the amplitude of cycles in construction activity between 1870 and 1890. The resulting prewar/postwar volatility ratios, for 1869-1928 as compared to 1950-1980, range from 1.43 to 2.16. The paper concludes by suggesting that this range of volatility ratios is more likely to understate than overstate the prewar/postwar volatility ratio.

Bamezai, Anil

TI Product Uses and Market Trends for Potential Ozone-Depleting Substances 1985-2000. **AU** Hammitt, James K.; Wolf, Kathleen A.; Camm, Frank; Moos, William E.; Quinn, Timothy H.; Bamezai, Anil.

Barro, Robert J.

PD May 1986. **TI** Ski-Lift Pricing with an Application to the Labor Market. **AU** Barro, Robert J.; Romer, Paul M. **AA** University of Rochester. **SR** University of Rochester Center for Economic Research Working Paper: 45; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 31. **PR** No Charge. **JE** 022. **KW** Queues. Sticky Prices. Ski Lift Pricing.

AB The market for ski runs or amusement rides often features lump-sum admission tickets with no explicit price per ride. Therefore, the equation of the demand for rides to the supply involves queues, which are systematically longer during peak periods, such as weekends. Moreover, the prices of admission tickets are much less responsive than the length of queues to variations in demand, even when these variations are predictable. We show that this method of pricing generates nearly efficient outcomes under plausible conditions. In particular, the existence of queues and the "stickiness" of prices do not necessarily mean that rides are allocated improperly or that firms choose inefficient levels of investment. We then draw an analogy between "ski-lift pricing" and the use of profit-sharing schemes in the labor market. Although firms face explicit marginal costs of labor that are sticky and less than workers' reservation wages, and although the pool of profits seems to create a common-property problem for workers, this method of pricing can approximate the competitive outcomes for employment and total labor compensation.

PD July 1986. **TI** Ski-Lift Pricing, with an Application to the Labor Market. **AU** Barro, Robert J.; Romer, Paul M. **AA** University of Rochester. **SR** National Bureau of Economic Research Working Paper: 1985; National Bureau of Economic Research 1050 Massachusetts Avenue Cambridge, MA 02138. **PR** $2.00. **JE** 821, 022. **KW** Ski-Lift Pricing. Labor Market. Profit Pools. Common Property Problem.

AB The market for ski runs or amusement rides often features lump-sum admission tickets with no explicit price per ride. Therefore, the equation of the demand for rides to the supply involves queues, which are systematically longer during peak periods, such as weekends. Moreover, the prices of admission tickets are much less responsive than the length of queues to variations in demand, even when these variations are predictable. We show that this method of pricing generates nearly efficient outcomes under plausible conditions. In particular, the existence of queues and the "stickiness" of prices do not necessarily mean that rides are allocated improperly or that firms choose inefficient levels of investment. We then draw an analogy between "ski-lift pricing" and the use of profit-sharing schemes in the labor market. Although firms face explicit marginal costs of labor that are sticky and less than workers' reservation wages, and although the pool of profits seems to create a common-property problem for workers, this method of pricing can approximate the competitive outcomes for employment and total labor compensation.

Bator, Francis M.

PD April 1986. **TI** Fine Tuning. **AA** Harvard John F. Kennedy School of Government. **SR** Harvard John F. Kennedy School of Government Discussion Paper: 151D; John F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. **PG** 11. **PR** No Charge. **JE** 023, 311, 321. **KW** Fiscal Policy. Monetary Policy. Keynesian Economics. New-Classical Critique.

AB Should the government take fiscal and monetary actions in response to unwanted movements in aggregate demand, or should it follow a regime of fixed money growth and a passive fiscal policy? The answer depends on whether the economy is convergently "flexprice" and thus rapidly self-adjusting, or, as Keynes thought, inertial in wages and prices and, if the latter, whether we know enough about the lags and multipliers to achieve better results than would fixed policy settings. If the United States economy is Keynesian, its poor 1965-1981 performance provides no evidence against an activist policy. (If the recently experienced rate of inflation is unacceptably high, or if the economy is subjected to a large upward supply-price shock, then, modern Keynesian models assert, there will not exist any conventional fiscal and monetary actions that would produce cheerful results with respect to both (1) output and employment and (2) inflation). In a Keynesian economy: preferences with respect to inflation and unemployment bear on the choice of an aggregate demand target, not on how actively responsive the government should be in pursuing that target; policy should aim at both nominal and real magnitudes in a way that recognises their interactions; it is sensible to make tactical use of any intermediate indicator as long as it exhibits sufficient short-run predictive power; and it is not sensible to waste degrees of freedom by treating auxiliary aiming points as though they were objectives.

PD May 1986. **TI** The State of Macroeconomics. **AA** Harvard John F. Kennedy School of Government.

SR Harvard John F. Kennedy School of Government Discussion Paper: 152D; John F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. **PG** 20. **PR** No Charge. **JE** 023. **KW** Macroeconomic Theory. Neo-Keynesian Synthesis. New-Classical Critique.
AB Contents I. Is There a Good Short-Run Macroeconomic Model? II. The New-Classical Critique. III. The New-Classical Alternative. IV. What About Money Wages? V. The Economic Coordination Problem.

PD June 1986. **TI** Functional Finance. **AA** Harvard John F. Kennedy School of Government. **SR** Harvard John F. Kennedy School of Government Discussion Paper: 153D; John F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. **PG** 7. **PR** No Charge. **JE** 023. **KW** Functional Finance. Lerner. Fiscal Policy. Monetary Policy. Keynesian Economics.
AB Abba Lerner's 1941-43 rules for fiscal and monetary policy in a Keynesian, sticky-wage economy sound old-fashioned but, by and large, they are right. Lerner was a neo-Keynesian. He didn't worry about monetary ineffectiveness, under-employment equilibrium, or secular stagnation. The need is for what he called a "steering wheel" to counter deviations of aggregate demand from the path of non-inflationary full-employment output. The only serious short-coming of the early 1940's formulation was the implicit assumption that the full employment level of output will coincide with the non-inflationary level of output. By 1945 -- earlier than most -- Lerner realized that that is unlikely to be the case and began his important work on stagflation.

Becker, Abraham S.

PD October 1985. **TI** Economic Factors Affecting Soviet Foreign and Defense Policy: A Summary Outline. **AA** Rand. **SR** Rand Paper: P-7148; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 11. **PR** No Charge. **JE** 124, 114, 133. **KW** Soviet Foreign Policy. Soviet Military Policy. Economic Constraints.
AB This paper was prepared for a conference on "Domestic Sources of Soviet Foreign and Defense Policies," held at the University of California, Los Angeles, October 10-11, 1985. It outlines the interrelations between economic factors, domestic or international, and Soviet foreign and military policy. The subject is considered in different arenas of Soviet involvement: Eastern Europe, East-West relations, and the Third World. Conclusions are drawn with regard to the role of economics as constraint on Soviet international involvement, the two-way influence between Soviet domestic economic and international economic factors, the economics of international relations as a source of Soviet policy conflict, and the relative dominance of politics and economics.

PD January 1986. **TI** Soviet Central Decisionmaking and Economic Growth A Summing Up. **AA** Rand. **SR** Rand Report: R-3349-AF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 62. **PR** No Charge. **JE** 110, 124. **KW** Soviet Union. Economic Growth. Central Decisionmaking. Military Development.
AB This report summarizes important characteristics of Soviet economic decisionmaking, examines Soviet prospects for economic growth under Gorbachev, and draws some policy implications for the United States. The author suggests that military development pressure is the most reliable United States bargaining tool, but cautions that its validity depends on continuation of Soviet economic stringencies and a Soviet belief that the United States threat can be rendered manageable. Therefore, United States military pressure should be balanced by a readiness to define conditions of strategic parity and to reach workable agreements translating such criteria into reality.

Beenstock, Michael

PD April 1986. **TI** The Market for Labour in Interwar Britain. **AU** Beenstock, Michael; Warburton, Peter. **AA** The City University, London. **SR** Centre for Economic Policy Research Discussion Paper: 105; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 35. **PR** 1 pound sterling ($2) individuals; 1.50 pound sterling ($3) companies, libraries, institutions. **JE** 044, 212, 824. **KW** Labour Market. United Kingdom Econometric Model.
AB Using annual data we estimate an econometric model of the interwar labour market in Britain. The model determines aggregate employment, unemployment, the working population and wage rates. The latter are determined via an augmented Phillips Curve, in which the 'natural' rate of unemployment is hypothesised to be influenced, inter alia, by the real level of unemployment benefit. Various counterfactual simulations are conducted to explore the effects of social security policy, monetary policy and the state of the world economy on domestic labour market developments. We find that much, though not all, of the rise in interwar unemployment was an equilibrium phenomenon.

Bell, Robert M.

TI The Dynamic Retention Model. **AU** Fernandez, Richard L.; Gots, Glenn A.; Bell, Robert M.

Benassy, Jean Pascal

PD April 1986. **TI** On the Role of Market Size in Imperfect Competition: A Bertrand-Edgeworth-Chamberlin Synthesis. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8610; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 41. **PR** 20 FF. **JE** 021, 611. **KW** Imperfect Competition. Existence of Equilibrium. Chamberlin. Bertrand-Edgeworth.
AB Competition is often associated with the idea that there are many traders on the market or that each price maker is small as compared to the market. This paper introduces this notion of market size in a model of competition using prices as strategic variables by constructing a model which makes a synthesis between the Chamberlin and Bertrand-Edgeworth lines of work on that subject. We notably investigate the role of two fundamental parameters in the existence of an equilibrium: the market size, given by the number n of competitors, and the degree of substitutability. We prove that: (a) For a given number n >= 2 of competitors, a sufficiently large

but finite degree of substitutability entails nonexistence, which thus generalizes the Bertrand-Edgeworth nonexistence result, which applies only to perfect substitutes. (b) Reciprocally for a given upper bound on the degree of substitutability, a sufficiently large number of competitors ensures existence, which thus introduces a significant role for market size in models of imperfect competition. We finally investigate the proximity of an equilibrium (when it exists) to a "competitive outcome", and we find that both high substitutability and large market size are a condition for competitiveness.

Benson, Harold P.

PD July 1985. **TI** On the Weighted Selection Algorithm for Certain Linear Programs With Nested Constraint Coefficients. **AU** Benson, Harold P.; Erenguc, S. Selcuk. **AA** University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 122; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 16. **PR** No Charge. **JE** 213. **KW** Linear Programming. Weighted Selection Algorithm. Separable Concave Maximization Problems.

AB Recently Faaland has developed a weighted selection algorithm for certain linear programming problems with nested constraint coefficients. This note has two purposes. First, we present a direct, concise proof of the validity of Faaland's weighted selection algorithm which does not use graph theory or duality theory. Second, we show how the algorithm can be used to solve certain separable concave maximization problems which include the linear programming problems considered by Faaland as a special case.

PD July 1986. **TI** A Branch and Bound-Relaxation Algorithm for Concave Minimisation Over a Convex Set. **AA** Department of Economics, University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 130; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 24. **PR** No Charge. **JE** 213. **KW** Concave Minimisation. Nonconvex Programming. Branch and Bound. Relaxation.

AB This article presents a new algorithm for solving the problem of globally minimizing a concave function over a compact, convex set. The algorithm uses both branch and bound relaxation. One of the major advantages of the algorithm is that the only significant nonlinear computation required can be accomplished using univariate search procedures. After establishing the convergence of the algorithm, we discuss this and other computational considerations. A small example is solved to illustrate the algorithm.

Berliant, Marcus

PD July 1986. **TI** The Welfare Theorems and Economies with Land and a Finite Number of Traders. **AU** Berliant, Marcus; Dunz, Karl. **AA** Berliant: University of Rochester. Dunz: State University of New York at Albany. **SR** University of Rochester Center for Economic Research Working Paper: 54; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 21. **PR** No Charge. **JE** 024, 021. **KW** General Equilibrium. Land. Welfare Theorems.

AB The welfare theorems when land is modelled as measurable subsets of the plane are considered. Convexity of preferences is not a natural assumption in this context. An example of a Pareto Optimum not supported by linear prices is given. The second welfare theorem with superadditive prices is proved. A counter-example to the first welfare theorem when prices are superadditive is given.

Bernstam, Mikhail S.

PD January 1986. **TI** The Production of Children as Claims on the State: A Comprehensive Labor Market Approach to Illegitimacy in the United States, 1960-1980. **AU** Bernstam, Mikhail S.; Swan, Peter L. **AA** Bernstam: Stanford University. Swan: University of New South Wales. **SR** Stanford Hoover Institution Working Paper in Economics: E-86-1; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 73. **PR** No Charge. **JE** 910, 824, 841, 851. **KW** Illegitimate Fertility. Welfare Payments. Minimum Wage.

AB In this paper we examine the economic causes of high illegitimate fertility in the United States, specifically among teenagers. In focusing on the production of children as labor market commodity production for wages rather than individual reproduction in the family, we view illegitimacy as a separate form of fertility. Using a large (500 observations) combined cross-section (50 states, two races) and time series (1960-1980 at five-yearly intervals) OLS analysis we find that illegitimacy is highly dependent on the level of exclusion of male youths from employment, either by non-participation in the labor force or unemployment. This leads to the deprivation of young females of the source of support from potential spouses and to the substitution of the state for individual husbands via AFDC (Aid to Families with Dependent Children), which requires the production of fatherless children as the entry condition. Children are produced, therefore, as claims on the state. We develop a comprehensive labor market approach to the decision to produce an illegitimate child. Comprehensive in the sense that opportunities for financial support extend beyond employment to marriage and welfare rolls via the production of illegitimate children (i.e., state as the effective spouse). We find, among other things, that the supply of teenage females without marriage prospects increases as the earning capacity of young males is reduced by non-participation and unemployment. The high uniform minimum wage relative to local market clearing wages and the high minimum wage coverage play the primary role in the displacement of young workers and in reducing their "marriageability." We show a significant positive correlation between various measures of illegitimacy and the combined effects of minimum wage coverage, male non-participation and unemployment.

PD October 1986. **TI** The State as the Marriage Partner of Last Resort: New Findings on Minimum Wage, Youth Joblessness, Welfare, and Single Motherhood in the United States, 1960-1980. **AU** Bernstam, Mikhail S.; Swan, Peter L. **AA** Berstam: Hoover Institution, Stanford University. Swan: University of South Wales. **SR** Stanford Hoover Institution Working Paper in Economics: E-86-62; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 66. **PR** No Charge. **JE** 813, 824, 826, 841, 914. **KW** Minimum Wage. Regulations. Unemployment. Welfare. Fertility. Illegitimacy. Poverty.

AB This paper develops a labor-market oriented expected utility model to explain the high level of illegitimacy, especially teenage single motherhood in the United States in the period 1960-80. Labor market regulations reduce, via disemployment, male youth income-earning capacity and thus reduce expected female opportunities on the marriage market. The mandated minimum wage rates together with increased minimum wage coverage are shown to increase non-participation and unemployment among male youths. This produces the high supply of unmarried teenage females who meet the demand for single motherhood generated by restrictive welfare benefits. (Welfare benefits in the United States are effectively restricted to single mothers). Male youth joblessness and low income increase the relative value of welfare benefits as an alternative female income. The above combination of youth labor market restrictions and the restrictive welfare system with its high regional differentials leads to a failure of the marriage market and to an explosion of illegitimate fertility. In a time series of the United States states cross-section, male youth joblessness and female income from welfare relative to labor market earning alternatives are shown to be significant factors of teenage out-of-wedlock fertility. Various measures of illegitimacy are high when joblessness is high and welfare benefits are high, given the state level of alternative incomes from employment and marriage. The same results are obtained using minimum wage rates and coverage as instruments for joblessness and male labor market earnings. Also, a direct regression of illegitimacy against minimum wage rates, coverage, and welfare finds a strong positive relationship, holding alternative income from employment constant. In addition, evidence is presented for a migratory flow of single mothers and children from low- to high-welfare states further increasing the significance of the role of welfare policies in the explosion of single motherhood. In effect the state has become the marriage partner of last resort for millions of American women, so that almost 20 per cent of them bear children out-of-wedlock before reaching the age of 25.

Besen, Stanley M.

PD December 1984. **TI** Regulation of Media Ownership by the Federal Communications Commission - An Assessment. **AU** Besen, Stanley M.; Johnson, Leland L. **AA** Rand. **SR** Rand Report: R-3206-MF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 83. **PR** No Charge. **JE** 635, 613. **KW** Regulation of Media Ownership. Broadcast Stations. Federal Communications Commission. Television Cable Systems.

AB This report assesses the state of current knowledge about the likely effects of the Federal Communications Commission's restrictions on the ownership of broadcasting stations and cable TV systems, to reach judgments about the desirability of modifying or eliminating existing FCC ownership regulations. It examines the evidence on the effects of group ownership of broadcast stations, concentrated regional ownership, common ownership of broadcast stations within a local market, television station-cable system cross-ownership, and telephone-cable cross-ownership. The report reaches four broad conclusions: (1) Concentrated broadcast station ownership leads neither to large operating efficiencies nor to anticompetitive behavior; (2) there is little or no basis for the FCC's group ownership rules, some support exists for rules limiting regional concentration, and stronger support exists for rules that limit cross-ownership within narrow geographic areas; (3) there is no compelling basis for lifting the telephone-cable system cross-ownership ban; and (4) present FCC rules, and many of the proposals for their repeal or modification, are often deficient because they fail to take into account actual competitive conditions.

TI The Economics of Bulk Power Exchanges. **AU** Acton, Jan Paul; Besen, Stanley M.

TI Regulation, Efficiency, and Competition in the Exchange of Electricity - First-Year Results from the Federal Energy Regulatory Commission Bulk Power Market Experiment. **AU** Acton, Jan Paul; Besen, Stanley M.

Bhargava, Alok

PD August 15, 1986. **TI** Testing Covariance Restrictions in Systems of Simultaneous Equations with Vector Autoregressive Errors. **AA** Department of Economics, University of Pennsylvania. **SR** University of Pennsylvania Econometrics Discussion Paper: 86-7; c/o Betty Hutt, Department of Economics, University of Pennsylvania, 3718 Locust Walk (CR) Philadelphia, PA 19104-6297. **PG** 21. **PR** 1.00; checks payable to Department of Economics, University of Pennsylvania. **JE** 211. **KW** Linear Simultaneous Equations. Vector Autoregressive Errors. Covariance Restrictions. Wald Tests. Distributional Misspecification.

AB This paper considers inference procedures in a system of linear simultaneous equations with errors generated by a vector autoregressive process in situations where the null hypotheses involve the elements of the dispersion matrix of the errors. The problem is approached through the reduced form of the system and the first order conditions for a maximum of the likelihood function are presented in an explicit form. This analysis in turn affords the development of the expressions for the asymptotic variance covariance matrix of the estimated dispersion matrix as well as the asymptotic covariance between these elements and the structural form parameter estimates. The results obtained rely on minimal assumptions on the actual distribution function of the errors and can be evaluated using the quasi likelihood function that has been concentrated with respect to the variance and serial correlation matrices of the errors. Finally, the usefulness of these methods in applied econometric work is discussed.

Birgil, Yasemin A.

PD September 1985. **TI** Coordinated Multi-Item Lot Sizing At A Single Stage: A Survey. **AU** Birgil, Yasemin A.; Erenguc, S. Selcuk. **AA** Department of Economics, University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 127; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 33. **PR** No Charge. **JE** 512. **KW** Lot Sizing. Coordinated Multi-Item Lot Sizing.

AB This paper constitutes an attempt for a unifying survey of the literature related to the coordinated multi-item lot sizing at a single stage. Over one hundred papers were reviewed under a taxonomic system which appeared to be the most appropriate given the state of the literature.

Black, Deborah G.

PD September 1986. **TI** Pioneering Products: Some Empirical Evidence from Futures Markets. **AU** Black, Deborah G.; Silber, William L. **AA** Black: Hunter College, CUNY. Silber: Graduate School of Business Administration, New York University. **SR** New York University Salomon Brothers Center Working Paper: 395; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 14. **PR** $3.00. **JE** 313, 621. **KW** Pioneering Products. Futures Markets.

AB The empirical evidence presented here provides a formal test of the advantages of "pioneering products" as suggested by Schmalensee. We find that the level of success of new futures contracts that qualify as pioneering products is significantly higher than the level of success of later "me-too" product designs. The statistical significance of these results adds to the anecdotal evidence provided by other researchers. Our results also suggest why nearly 70 percent of the new financial futures contracts introduced between 1975 and 1982 were of the pioneering variety. Despite the fact that these pioneering products cost much more to innovate compared with "me-too" products, futures exchanges pursue the high-cost strategy because it is the most successful approach.

Bomnisseau, Jean Marc

PD 1986. **TI** Existence of Equilibria When Firms Follow Bounded Losses Pricing Rules. **AU** Bomnisseau, Jean Marc; Cornet, Bernard. **AA** Centre for Operations Research and Econometrics, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8607; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 30. **PR** No Charge. **JE** 021. **KW** Pricing Rules. Bounded Loss Pricing Rules. Equilibrium.

AB We consider a general equilibrium model of an economy with increasing returns to scale or more general types of nonconvexity in production. The firms are asked to set their prices according to general pricing rules which are supposed to have bounded losses. This includes the case of loss-free pricing rules hence, in particular, the average cost pricing rule. As for the marginal cost pricing rule, the bounded losses assumption for a firm is shown to be equivalent to the "star-shapedness" of its production set. This paper reports a general existence result in this model.

Bowman, Adrian

TI Bootstrapping in Nonparametric Regression: Local Adaptive Smoothing and Confidence Bands. **AU** Hardle, Wolfgang; Bowman, Adrian.

Boyer, Kenneth D.

PD September 1986. **TI** The Costs of Price Regulation: Lessons from Railroad Deregulation. **AA** Department of Economics, Michigan State University. **SR** Michigan State Econometrics and Economic Theory Workshop Paper: 8603; Department of Economics, Michigan State University, East Lansing, MI 48824. **PG** 29. **PR** No Charge. **JE** 613, 615. **KW** Deregulation. Costs of Regulation. Railroads.

AB In contradiction to the assumptions under which the costs of railroad rate regulation have been calculated, deregulation has not led to lower railroad rate levels, nor has deregulation allowed railroads to capture significant amounts of traffic from other modes. A calculation performed using standard assumptions and data from before and after deregulation shows the costs of railroad rate level regulation to have been, at a maximum, $55 million per year. The true costs of price regulation are likely to be found not in rate level regulation but in operations controls and the secondary distortions introduced by rate structure regulation.

Brackly, Gunter

PD November 1985. **TI** Two Dimensional Unfolding: A Constructive Solution in the Case of Given Incomplete Rank Order Systems. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B 8; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 26. **PR** No Charge. **JE** 213. **KW** Unfolding. Perpendicularbisector Hyperplanes. Plane Rank Order Systems.

AB This paper gives a constructive solution to the two dimensional unfolding problem in the case of given incomplete rank order systems.

Bradford, David F.

PD September 1986. **TI** Issues in the Measurement and Interpretation of Effective Tax Rates. **AU** Bradford, David; Stuart, Charles. **AA** Bradford: Woodrow Wilson School, Princeton University. Stuart: Nationalekonomiska Institut. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 115; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. **PG** 25. **PR** No Charge. **JE** 321, 323. **KW** Effective Tax Rate. Investment Incentives. Capital Taxation.

AB Marginal effective tax rates on investment that are derived from the user cost of capital are nowadays widely used practically to assess the effects of capital taxation. In this paper, we examine several troublesome issues in the construction and use of marginal effective tax rates and user costs of capital. Our comments fall into two classes. In the first are concerns about the adequacy of the current generation of models of capital-market equilibrium, into which marginal effective tax rates (user costs) are incorporated. In the second are concerns about the appropriateness of the assumption, implicit and nearly universal in marginal effective tax rate calculations, that investors expect a given tax code to remain unchanged forever. We show that effects of current changes in the law on expectations about future changes may undo or even reverse the effects predicted by traditionally calculated effective tax rates.

PD July 1986. **TI** Issues in the Measurement and Interpretation of Effective Tax Rates. **AU** Bradford, David F.; Stuart, Charles. **AA** Bradford: Princeton University. Stuart: Nationalekonomiska Institut. **SR** National Bureau of Economic Research Working Paper: 1975; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 323, 522. **KW** Tax Rates. Capital Taxation.

AB Marginal effective tax rates on investment that are derived from the user cost of capital are nowadays widely used practically to assess the effects of capital taxation. In this paper, we examine several troublesome issues in the construction and use of marginal effective tax rates and user costs of capital. Our comments fall into two classes. In the first are concerns about the adequacy of the current generation of models of capital-market equilibrium, into which marginal effective tax rates (user costs) are incorporated. In the second are concerns about the appropriateness of the assumption, implicit and nearly universal in marginal effective tax rate calculations, that investors expect a given tax code to remain unchanged forever. We show that effects of current changes in the law on expectations about future changes may undo or even reverse the effects predicted by traditionally calculated effective tax rates.

Branson, William H.

PD July 1986. **TI** Dollar Appreciation and Manufacturing Employment and Output. **AU** Branson, William H.; Love, James P. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 1972; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** \$2.00. **JE** 431, 420, 824, 228. **KW** Exchange Rate. Manufacturing Employment. Output. Dollar Appreciation.

AB This paper examines the impact of the movements in the real exchange rate on employment and output in United States manufacturing industries. We use a simple model of supply and demand to estimate the elasticity of manufacturing employment and output with respect to the real exchange rate, at different levels of aggregation. The data are quarterly, covering two time periods -- 1963:1 to 1985:1 and 1972:1 to 1985:1. The employment estimates include 20 manufacturing sectors at the 2-digit SIC level, 125 sectors at the 3-digit SIC level, 176 sectors at the 4-digit SIC level. In addition, we disaggregate manufacturing employment regionally by the 50 states plus the District of Columbia. The output estimates include 80 sectors of industrial production at different levels of aggregation. We check for consistency by considering the impact of aggregation among the 2-,3-, and 4-digit employment estimates, and by comparing the estimates for employment to those for output. We find that exchange rate movements have had important effects on the manufacturing sector, and in particular, the durable goods sector, including primary metals, fabricated metal products, and non-electrical machinery. Other sectors that suffer large employment loses when the dollar appreciates are stone, clay and glass products, transportation, instruments, textiles and apparel, chemicals, rubber and leather goods.

Brems, Hans J.

PD September 1986. **TI** Does it Matter Whether Capital is Fixed or Circulating? -- A Wicksellian Exercise. **AA** Department of Economics, University of Illinois. **SR** University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1281; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. **PG** 30. **PR** No Charge. **JE** 031. **KW** Swedish School. Elasticity. Wicksell. Aggregate Output.

AB Before the fiftieth anniversary of the Swedish School this Wicksellian exercise sees fixed capital as a stock of machines with variable useful life and circulating capital as a wage fund with variable period of production. The paper applies to both forms the mathematical technique that Wicksell, towards the end of his life, applied to only one of them. For either form three remarkably simple interest elasticities result: the elasticity of length of time, the elasticity of demand for capital, and the elasticity of aggregate physical output. Between the two forms such elasticities differ either not at all or very little.

PD September 1986. **TI** Gustav Cassel's Contribution to Economic Theory. **AA** Department of Economics, University of Illinois. **SR** University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1282; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. **PG** 29. **PR** No Charge. **JE** 031. **KW** Swedish School. Growth Theory. Cassel.

AB Before the fiftieth anniversary of the Swedish School, the present paper examines the contributions to economic theory of one of its founding fathers, Gustav Cassel. Cassel broke new ground in at least three areas. First, his microeconomic growth theory was entirely new and became important because it directly inspired John von Neumann. Second, Cassel's macroeconomic growth theory was equally new and fully anticipated Harrod by thirty years. Third, Cassel's theory of the optimal depletion of mines awakened a subject that had remained dormant since Ricardo. Here, Cassel anticipated by sixty years much of what economists were to say in the aftermath of the oil crisis.

Breusch, T. S.

TI Dynamic Specification, the Long Run and the Estimation of Transformed Regression Models. **AU** Wickens, M. R.; Breusch, T. S.

Brook, Robert H.

TI How Free Care Reduced Hypertension of Participants in the Rand Health Insurance Experiment. **AU** Keeler, Emmett B.; Brook, Robert H.; Goldberg, George A.; Kamberg, Caren J.; Newhouse, Joseph P.

TI The Impact of Cost Sharing On Emergency Department Use. AU OGrady, Kevin F.; Manning, Willard G.; Newhouse, Joseph; Brook, Robert H.

Browne, M. W.

PD December 1984. **TI** The Covariance Matrix of a General Second Degree Matrix Polynomial Under Normality Assumptions. **AU** Browne, M. W.; Neudecker, H. **AA** Browne: University of South Africa. Neudecker: University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 25/84; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 9. **PR** No Charge. **JE** 211, 213. **KW** Covariance Matrix. Cumulant Generating Function. Kronecker Product. Matrix Differentiation. Matrix Operators. Matrix Polynomial. Noncentral Wishart Distribution.

AB A matrix expression for the covariance matrix of a general second degree matrix polynomial is derived by applying methods of matrix differentiation to the cumulant generating function.

Broze, L.

PD September 1986. **TI** Identification and Consistent Estimation of Multivariate Linear Models with Rational Expectations of Current Variables. **AU** Broze, L.; Gourieroux, Christian; Szafarz, A. **AA** Broze and Szafarz: University of Brussels. Gourieroux: CEPREMAP. **SR** CEPREMAP Discussion Paper: 8617; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 57. **PR** 25 FF. **JE** 211. **KW** Rational Expectations. Identification. Instrumental Variables.

AB This paper deals with the identification and the estimation of multivariate models which include rational expectations of current variables. In the dynamic case, two concepts of identifiability (weak and strong) are introduced depending on the information set chosen by the econometrician. They lead to specific conditions and allow for a reconsideration of the observational distinguishability between rational expectations and perfect foresight. Also each concept appears to give a necessary and sufficient condition for the consistency of a specific estimator.

Buchanan, Joan L.

TI Reconciling Air Force Physicians' Peacetime and Wartime Capabilities Demonstration of a Workforce Design Methodology. **AU** Hosek, Susan D.; Buchanan, Joan L.; Goldberg, George A.

Buddin, Richard

PD March 1985. **TI** Reducing the Air Force Male Enlistment Requirement - Effects on Recruiting Prospects of the Other Services. **AU** Buddin, Richard; Witsberger, Christina. **AA** Rand. **SR** Rand Report: R-3265-AF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 36. **PR** No Charge. **JE** 114, 810, 851. **KW** Military Enlistment Requirement. Women in the Military. Recruiting Prospects.

AB If the Air Force filled a larger share of its enlistment requirement with women, how many of the displaced male Air Force recruits would join the Army, Navy, or Marines instead? This is the key question raised by a Congressional proposal calling upon the Air Force to make a rapid increase in the number of its female nonprior service enlistees. The proposal is intended to increase the numbers of high-quality male personnel available to the Army. It would help the Army if young male Air Force accessions consider the other services to be close substitutes and would enlist in another branch of the armed forces even if denied their first service choice. This study examined individual intentions and individual behavior, and used a multivariate model to predict the likelihood of an individual's choosing a particular service or civilian alternative. It concludes that, if the Air Force reduced its male enlistment requirement, most of the displaced male Air Force recruits would choose to remain civilians. Few would enlist in other service branches.

Butz, William P.

TI Age At Menarche In Peninsular Malaysia: Time Trends, Ethnic Differentials, And Association With Ages At Marriage and at First Birth. **AU** Ann, Tan Boon; Othman, Ramli; Butz, William P.; DaVanzo, Julie.

TI The Contraceptive Role of Breastfeeding. **AU** Habicht, Jean Pierre; DaVanzo, Julie; Butz, William P.; Meyers, Linda.

Cameron, Kathie

PD August 1986. **TI** Monotone Path Systems in Simple Regions. **AU** Cameron, Kathie; Sachs, Horst. **AA** Cameron: University of Bonn. Sachs: University of Ilmenau. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86429; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** No Charge. **JE** 213. **KW** Monotone Path Systems.

AB A monotone path system (MPS) is a finite set of pairwise disjoint paths (polygonal arcs) in the xy-plane such that every horizontal line intersects each of the paths in at most one point. A MPS naturally determines a "pairing" of its top points with its bottom points. We consider a simple polygon delta in the xy-plane which bounds the simple polygonal region D. Let T and B be two finite, disjoint, equicardinal sets of points of D. We give a good characterization for the existence of a MPS in D which pairs T with B, and a good algorithm for finding such a MPS. We also give sufficient conditions for any such pairing to be the same.

Camm, Frank

TI Product Uses and Market Trends for Potential Ozone-Depleting Substances 1985-2000. **AU** Hammitt, James K.; Wolf, Kathleen A.; Camm, Frank; Mooz, William E.; Quinn, Timothy H.; Bamezai, Anil.

Canzoneri, Matthew B.

PD July 1986. **TI** When International Policy Coordination Matters: An Empirical Analysis. **AU** Canzoneri, Matthew B.; Minford, Patrick. **AA** Canzoneri: Department of Economics, ICC Georgetown University. Minford: Department of Economics, University of Liverpool. **SR** Centre for Economic Policy Research Discussion Paper: 119; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 30. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 023, 026, 423. **KW** Policy Coordination. Liverpool World Model. Spillover Effects. Monetary Policy.

AB The interdependence of national economies implies externalities in policy making, and these externalities lead to inefficient outcomes when policy-making is decentralised and independent. These externalities have been well documented from a theoretical point of view. This paper reports our attempts to discover if and when policy coordination matters. We use the Liverpool World Model, which exhibits strong spillover effects for monetary policy and would therefore, we thought, yield very different results from those of earlier researchers. However, strong spillover effects do not guarantee that cooperative and non cooperative policies will yield very different outcomes: other aspects of the policy game's structure can be equally important. Indeed, we found many plausible situations in which the non-cooperative and cooperative solutions are effectively indistinguishable, given realistic assumptions concerning the precision with which central banks seem to be able to control their money supplies. We also discovered situations in which coordination does make a significant difference, however.

Caplin, Andrew

PD September 1985. **TI** Inflation, Menu Costs and Endogenous Price Variability. **AU** Caplin, Andrew; Spulber, Daniel F. **AA** Caplin: Department of Economics, Harvard University. Spulber: Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8517; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 44. **PR** No Charge. **JE** 134, 022. **KW** Price Adjustment. Price Variability. Inflation.

AB This paper presents a model with costly price adjustment in which relative price variability is derived by aggregating individual firm price adjustments. The model builds on the Sheshinski-Weiss model of optimal price adjustment under stochastic inflation. The steady state properties of their single firm model are derived. Menu costs of price adjustments are shown to drive a wedge between the variance of individual firm prices and the variance of aggregate inflation. Then a consistent aggregate version of the model is constructed. It is shown that relative price variability exactly equals the wedge between the variance of firm and aggregate price increases. This wedge is increasing in both the mean and variance of inflation. Thus, the level and variability of inflation are positively associated with relative price variability.

PD October 1986. **TI** On 64 per cent - Majority Rule. **AU** Caplin, Andrew; Nalebuff, Barry. **AA** Department of Economics, Princeton University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 116; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. **PG** 34. **PR** No Charge. **JE** 025. **KW** Condorcet's Paradox. Min-max Majority. Social Choice. Voting.

AB Many electoral rules (such as those governing the United States Constitution) specify that a super-majority vote is required to change the status-quo. It is well known that without some restriction on preferences, super-majority rules may have paradoxical properties. For example, electoral cycles are possible with anything other than 100 per cent-majority rule. Can these problems still arise if there is sufficient similarity of attitudes among the voting population? We introduce a definition of social consensus which involves two restrictions on domain: one on individual preferences, the other on the distribution of preferences. Individuals vote for the proposal closest (in Euclidean distance) to their most preferred point. The density of voters' ideal points is concave over its support in R sup n. Under these conditions, there exists an unbeatable proposal according to 64 per cent-majority rule and furthermore no electoral cycles are possible. For n-dimensional decision problems, the precise majority size necessary to avoid cycles is 1-'n/(n+1)**n which rises monotonically to 1-1/e, just below 64 per cent. Our approach is based on the Simpson-Kramer min-max rule. We compare this rule with Condorcet's original proposal for an electoral system immune to his paradox of voting. We conclude by considering the properties of a voting constitution based on 64 per cent-majority rule.

Card, David

PD August 1986. **TI** Longitudinal Analysis of Strike Activity. **AA** Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 213; Industrial Relations Section, Princeton University, Princeton, NJ 08544. **PG** 63. **PR** No Charge. **JE** 832. **KW** Strike Activity. Contract Renegotiation.

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 variation in strike activity over time within bargaining pairs. Cross-sectional and longitudinal estimation techniques show that strike probabilities are higher in summer and fall than winter and spring. Strike probabilities are also increased by increasing the length of time between negotiations, and reduced in limited wage reopening negotiations. Finally, strike probabilities are significantly affected by lagged strike outcomes. Relative to a peaceful settlement of the previous contract, strike probabilities are 10 percentage points higher following a strike of two weeks or less, and 5 to 7 percentage points lower following a strike of longer than two weeks.

Carter, Grace M.

PD June 1985. **TI** The Medicare Case Mix Index Increase - Medical Practice Changes, Aging, and Diagnosis Related Groups Creep. **AU** Carter, Grace M.; Ginsberg, Paul B. **AA** Rand. **SR** Rand Report: R-3292-HCFA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 56. **PR** No Charge. **JE** 913. **KW** Medicare Case Mix Increase. Change in Medical Practices. Aging. Diagnosis Related Groups Creep.

AB In 1984, the Medicare program paid hospitals a higher amount per patient discharge than had been projected, because of a substantial shift in the mix of cases toward those with higher payment rates. This report examines what part of that change in measured case mix is due to medical practice changes, what part to change in the resource needs of patients, and what part to changes in the coding of medical records in response to the incentives of a prospective payment system based on Diagnosis Related Groups (DRG). Two databases were used to investigate the causes of the Case Mix Index (CMI) increase: Medicare bills from calendar year 1981 and fiscal year 1984, and discharge abstract data from the Commission on Hospital and Professional Activities for January 1981 through September 1984. Medical practice changes account for only 2.1 percentage points of the 8.4 percent increase in the CMI; aging of the Medicare inpatient population explained none of the increase; changes in documentation and coding account for the remaining 6.2 percentage point increase in the CMI, but further experience will determine whether the increase is a one-time adjustment to a new coding environment, or a phenomenon of continued inflation in the CMI due to aggressive coding practices.

Cave, Jonathan A. K.

PD March 1986. **TI** Refinements of Sequential Equilibrium In a Legal Settlements Case. **AA** Rand. **SR** Rand Paper: P-7212; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 29. **PR** No Charge. **JE** 916, 026. **KW** Sequential Equilibria. Legal Signalling Game. Legal Settlements.

AB This paper examines various refinements of sequential equilibrium in a legal signaling game. It is of interest as an extension of perfect and proper equilibrium to games with a continuum of strategies, as well as a contribution to the analysis of legal settlements. Regarding the first, the author shows that, in contrast to the finite case, there are sequential, perfect, divine, and even proper equilibria in which weakly dominated strategies are used with positive probability. Regarding the second, he shows that such refinements can drastically reduce the set of sequential equilibria, to the point where comparative statics analysis is possible.

Chalfant, James A.

TI Macroeconomic Linkages, Taxes, and Subsidies in the United States Agricultural Sector. **AU** Rausser, Gordon C.; Chalfant, James A.; Love, H. Alan; Stamoulis, Kostas G.

PD May 1986. **TI** A Globally Flexible, Almost Ideal Demand System. **AA** Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of California, Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper: 340, Rev.; Department of Agricultural and Resource Economics, 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 39p. **PR** $7.80. **JE** 022, 921, 213. **KW** Almost Ideal Demand System. Food. Flexible Functional Forms. Fourier Flexible Form. Consumer Demand.

AB The almost ideal demand system is combined with the Fourier expenditure system. Subject to the assumption that preferences are of the price-independent, generalized-logarithmic class, the resulting demand system has the desirable features of each of its components. Aggregate demand equations are consistent with preferences of a representative consumer, and consistent estimates of elasticities are obtained for all observed prices. Application of the new demand system to United States consumption of meats and fish reveals that it fits the data well and that the restriction to the usual specification is rejected.

PD July 1986. **TI** Accounting for Changes in Tastes. **AU** Chalfant, James A.; Alston, Julian M. **AA** Chalfant: Department of Agricultural and Resource Economics, University of California. Alston: Victorian Department of Agriculture, Australia. **SR** University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper: 402; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 24p. **PR** $4.80. **JE** 921. **KW** Consumer Preferences. Taste Changes. Demand Systems Approach. Revealed Preference.

AB It appears to be widely believed that there has been a shift of consumer preferences away from red meat in response to increased health consciousness. Econometric studies have indicated some empirical support for this notion, but testing for taste changes is fraught with difficulty, especially when a single time series data set is used for both estimating the nature of demand and testing for structural changes. There is a significant risk that specification error or measurement problems will indicate taste changes where none have occurred. This paper makes use of data from two countries, the United States and Australia, to examine the question of taste changes affecting the demand for meat. Two quite different approaches are compared -- a parametric, demand systems approach and a nonparametric, revealed preference approach. While there is evidence of structural change in both countries using estimated almost ideal demand systems, the revealed preference analysis indicates stable preferences for both the United States and Australia. The implications are that specification errors in the demand system are responsible for the findings of structural change and that one cannot reject the hypothesis of stable meats demands.

PD July 21, 1986. **TI** A Note on Causality Between Money, Wages, and Prices in Australia. **AU** Chalfant, James A.; Alston, Julian M. **AA** Chalfant: Department of Agricultural and Resource Economics, University of California, Berkeley. Alston: Department of Agriculture and Rural Affairs, Victoria, Australia. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 422; Department of Agricultural and Resource Economics, 207 Giannini Hall University of California, Berkeley, CA 94720. **PG** 14. **PR** $2.80. **JE** 122, 211, 130. **KW** Causality. Australia. Money. Wages. Prices. Inflation.

AB Causality tests for the temporal ordering of economic variables have abounded since the papers by Granger (1969) and Sims (1972) popularised the concept. A debate has continued in the literature over the appropriateness of the technique with some papers, such as Sims (1980), criticising the more structural approach to modeling and those typified by Leamer (1985), Jacobs et al. (1979), and Zellner (1979) essentially objecting to the term causality, arguing that it is better treated as a simple method for examining lead and lag relationships. Recently, the question of causality in wage and price determination in Australia was addressed by Boehm (1984), who found that, for the most part, wage increases lead price increases in Australia. Using quarterly data (1954-1982), he found that causation runs consistently from wages to prices and has been generally unidirectional; some feedback or bidirectional causation was detected but only for the early 1970s. In this paper, we use these results to study the use of causality tests when other variables are omitted from the analysis.

TI Weak Separability and a Test for the Specification of Income in Demand Models With an Application to the Demand for Meat in Australia. **AU** Alston, Julian M.; Chalfant, James A.

Chamley, Christophe

PD April 1986. **TI** Fiscal Incidence in Overlapping Generation Models with a Fixed Asset. **AU** Chamley, Christophe; Wright, Brian D. **AA** Chamley: Stanford University. Wright: University of California, Berkeley. **SR** Stanford Hoover Institution Working Paper in Economics: E-86-13; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 30. **PR** No Charge. **JE** 321, 323. **KW** Fiscal Incidence. Overlapping Generations. Land Tax.

AB We analyse a model of overlapping generations with a fixed factor ("land"), malleable capital, and labor. We consider the dynamic effects of various fiscal policies including taxes on rent, wages, and creation of public debt on capital accumulation, land prices, and intergenerational welfare. Minimal assumptions (uniqueness and stability) imply that a land tax may initially raise land values, but the upper bound is less than one-half of the tax revenues. Assuming homothetic utility, the ratio between the long-run capital responses to a land tax and to a lump-sum transfer of equivalent revenue from the young to the old depend solely on the share of labor.

Chesnutt, Thomas W.

TI Projected Use, Emissions, And Banks of Potential Ozone-Depleting Substances. **AU** Quinn, Timothy H.; Wolf, Kathleen A.; Moos, William E.; Hammitt, James K.; Chesnutt, Thomas W.; Sarma, Syam.

Christensen, Benedicte Vibe

PD July 1986. **TI** Switzerland's Role as an International Financial Center. **AA** International Monetary Fund. **SR** International Monetary Fund Occasional Paper: 45; International Monetary Fund, Washington, D.C. 20431. **PG** 40. **PR** $7.50 ($4.50 to university libraries, faculty, students). **JE** 441, 122. **KW** International Banking. Switzerland.

AB Switzerland, through a long tradition of banking and finance, has developed into a major center for international financial transactions. Although deregulation, the creation of offshore banking facilities, and a relaxation of capital controls in other countries have reduced its comparative advantage, it still remains important as an international center. The paper describes the development and characteristics of international financial transactions in Switzerland and the structural changes that have taken place there in recent years.

Christodoulakis, Nicos

PD August 1986. **TI** Policy Design and Operation in a Macroeconomic Model With a Managed Exchange Rate Under Different Expectational Regimes. **AU** Christodoulakis, Nicos; Prof, Vines David. **AA** Christodoulakis: University of Cambridge. Vines: University of Glasgow. **SR** Centre for Economic Policy Research Discussion Paper: 122; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 39. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 300, 431, 023. **KW** Policy Design. Exchange Rates. Rational Expectations.

AB An investigation of the problems of policy formation has to take account of the way in which expectations may be formed. The assumption of rationality is often made on the grounds that there is no reason to assume that views of the future display any particular bias. Some authors take this further, arguing that it is unwise to adopt policies which would only work if they were misunderstood by the public. However it is equally important that policies should not rely on rationality to be successful; any policy package should be tested for robustness under a variety of expectational regimes. Here we discuss methodological issues of policy design and application under rational expectations; we then go on to demonstrate the effects of a particular policy package on a model of the British economy, derived from version 7 of the National Institute (NIESR) model, suitably modified so as to allow the identification of expectational effects in financial markets. This allows a much more thorough analysis of financial policy than was available to Vines, Maciejowski and Meade in their earlier work. We consider the effectiveness of a policy designed under an assumption of rationality, but applied to an economy in which financial markets are adaptive. The analysis is carried out on the assumptions that wage behaviour is governed by an inflation-augmented Phillips curve and that the exchange rate is managed.

Coate, Malcolm B.

PD September 30, 1986. **TI** Dual Distribution as a Vertical Control Device. **AU** Coate, Malcolm B.; Fratrick, Mark R. **AA** Coate: Bureau of Economics, Federal Trade Commission. Fratrick: National Association of Broadcasters. **SR** Federal Trade Commission Bureau of Economics Working Paper: 143; Federal Trade Commission, Bureau of Economics, Industry Analysis, 6th and Pennsylvania Avenue, Northwest, Washington, DC 20580 - Attention: Working Paper Coordinator. **PG** 33. **PR** No Charge. **JE** 611, 612, 022. **KW** Dual Distribution. Vertical Restraints.

AB This paper posits transaction costs as the reason manufacturers use dual distribution (i.e. sell to customers through both independent and company-owned distributors). Basing our analysis on Williamson's four types of transactions costs, we identify seven explanations for dual distribution. These reasons are life cycle considerations, lack of distributor competition, information costs, facilitation of collusion, manufacturer opportunism, price discrimination, customer service and manufacturer efficiencies. We conclude that the competitive effect of dual distribution depends on which of the above explanations is relevant. If more than one explanation is valid, it may be necessary to balance the competitive effects in both the manufacturing and retail markets to evaluate the practice.

Cocchi, Daniela

PD March 1986. **TI** Linear Bayes Estimation in Finite Populations With a Categorical Auxiliary Variable. **AU** Cocchi, Daniela; Mouchart, Michel. **AA** Mouchart: CORE, Universite Catholique de Louvain. Cocchi: Universite di Bologna. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8615; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 21. **PR** No Charge. **JE** 211. **KW** Least Squares Approximations. Linear Bayes Method. Finite Population. Partial Exchangeability. Superpopulation.

AB Least squares approximations are given for both the structural expectation and the unsampled population values in a finite population model with an auxiliary variable which is categorical. An ANOVA model II is used as a guideline and a motivation. The linear Bayes approach is shown to provide easy and operational solution to the well known difficulty of integrating out the superpopulation parameters in a Bayesian framework.

Cohen, Daniel

PD February 1986. **TI** Dynamic Consistency of Government's Behavior: A User's Guide. **AU** Cohen, Daniel; Michel, Philippe. **AA** Cohen: CEPREMAP. Michel: Universite Paris I. **SR** CEPREMAP Discussion Paper: 8605; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 34. **PR** 20 FF. **JE** 023, 300. **KW** Government Policy. Control Theory. Dynamic Consistency. Consumption Function. Inflation-Output Tradeoff.

AB The paper investigates a number of questions related to the dynamic inconsistency of government economic policy: when is the optimal program likely to be time inconsistent? How to select a time-consistent policy when the government cannot pre-commit itself for the future? Does there always exist a rule which dominates the time-consistent policy? These questions are answered in a stochastic linear quadratic framework and two examples dealing with the inflation-output trade-off and the consumption function are examined.

Cornet, Bernard

TI Existence of Equilibria When Firms Follow Bounded Losses Pricing Rules. **AU** Bomnisseau, Jean Marc; Cornet, Bernard.

Cox, Donald

PD January 1986. **TI** Motives for Private Income Transfers. **AA** Washington University. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-3; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 65. **PR** No Charge. **JE** 921, 911. **KW** Private Income Transfers. Public Transfer Programs.

AB Private income transfers are becoming increasingly recognised as a key aspect of the United States economy. The majority of private income transfers occur inter vivos (i.e., between living persons), but very little is known about this type of transfer behavior. This paper tests alternative hypotheses concerning motivation for inter vivos transfers. Two motives are considered -- altruism and exchange. Evidence presented here casts doubt on the altruistic model of transfer behavior. Observed patterns for inter vivos transfers are more consistent with exchange-related motives. This finding has important implications for the effects of public transfer programs on the distribution of economic well-being.

Crane, Keith

PD January 1985. **TI** The Creditworthiness of Eastern Europe in the 1980s. **AA** Rand. **SR** Rand Report: R-3201-USDP; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 208. **PR** No Charge. **JE** 443, 114. **KW** Hard Currency Debt Problems. Eastern Europe. Military Expenditures.

AB This report develops various scenarios to analyse the hard currency debt problems of Poland, Hungary, and Romania. It considers the effect of adjustment policies on (1) those countries' struggles with their balance of payments; (2) their ability to generate more rapid increases in output through increased hard currency exports; and (3) their levels of military expenditure while there is so much pressure on their balance of payments. It concludes that if Romania and Hungary manage to service their debts in the next few years, they should be credit worthy borrowers by the end of the 1980s, but that Poland has little prospect of restoring solvency even in the 1990s. Output growth in all three countries will be constrained by their ability to finance hard currency imports and to increase hard currency exports. Western credit policy is not likely to affect either the independence of these countries from the Soviet Union or their military expenditures.

PD November 1985. **TI** Polish Balance of Payments and Output in 1990: Alternative Scenarios. **AA** Rand. **SR** Rand Paper: P-7157; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 25. **PR** No Charge. **JE** 124, 431, 132. **KW** Poland. Hard Currency Debt. Debt Service. Balance of Payments.

AB This paper assesses Poland's prospects for timely service of its hard currency debt and the effects debt service will have on output growth. It attempts to capture the policy options open to Poland, the Soviet Union, and the West in the form of a series of scenarios, and then projects hard currency balance of payments and output for each scenario. A comparison of the projections provides a means by which the impact of alternative policies on Polish creditworthiness and output levels can be judged. The scenarios indicate that neither Western nor Soviet policy decisions are likely to have much impact on Poland's creditworthiness or economic growth. The author concludes that the solution to Poland's debt crisis lies in the hands of its leaders. Policies that may resolve the crisis exist; they remain to be adopted.

Cukierman, A.

PD May 1986. **TI** Asymmetric Information and the Electoral Momentum of Public Opinion Polls. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 19-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 34. **PR** No Charge. **JE** 025. **KW** Political Economy. Elections. Polls. Asymmetric Information.

AB This paper demonstrates that the existence of public opinion polls amplifies the effects of shifts in the distribution of the public's preferences over the issue space on the election's results. It is based on the notion that the typical individual evaluates candidates not only by their positions on the issue space but also by a valence or general ability dimension. Some individuals have more precise information about the relative abilities of candidates than others. I refer to them as the informed and uninformed respectively. Since public opinion polls reflect the information of the informed they convey new knowledge about the relative ability of candidates to the uninformed. High approval for a candidate at the polls signals that he is more likely to be abler. However, high approval may also reflect changes in the distribution of the public on the issue space. As a result the uninformed partly confuse the two effects and public opinion polls tend to reinforce the effects of shifts in the public's preferences on election results. A shift to the right that shows up as more support for the right wing candidate at the polls is partly interpreted as a higher efficiency of this candidate. As a result he wins with a margin that is higher than the margin he would have won with in the absence of polls or under perfect information. Polls reinforce the momentum of the candidate in whose favor public opinion is shifting.

PD May 1986. **TI** Central Bank Behavior and Credibility - Some Recent Developments. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 23-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 41. **PR** No Charge. **JE** 311, 134. **KW** Monetary Policy. Credibility. Inflation. Dynamic Inconsistency. Ambiguity. Asymmetric Information. Central Bank.

AB This paper surveys the recent literature on central bank behavior and credibility with particular focus on the inflationary bias of central bankers. The survey focuses mostly on the positive (as opposed to normative) aspects of central bank behavior. A common thread of this literature is that inflation and lack of credibility arise as the consequence of a gaming interaction between a central bank and a representative agent with conflicting objectives. In the social welfare approach to central bank behavior the conflict arises because of some externality. In the political approach it arises because of differences in the distributional objectives of the central bank and of the representative agent. Models of symmetric as well as of asymmetric information are discussed. With asymmetric information credibility is defined as the extent to which the public believes that the central bank will inflate at the rate it plans to inflate. Imperfect monetary control decreases credibility and slows down the speed with which the public revises its view about (unknown to the public) central bank's objectives. The inclination of central banks for secrecy and ambiguity is documented and a of optimal political ambiguity is proposed to explain this inclination.

Currie, David

TI The Sustainability of Optimal Cooperative Macroeconomic Policies in a Two-Country World. **AU** Levine, Paul; Currie, David.

Danzon, Patricia M.

PD March 1986. **TI** The Effects of Tort Reforms on the Frequency And Severity of Medical Malpractice Claims: A Summary of Research Results. **AA** Rand. **SR** Rand Paper: P-7211; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 12. **PR** No Charge. **JE** 913, 916. **KW** Malpractice Suits. Tort Reforms. Victim Compensation.

AB This paper, originally presented as testimony before the Committee on the Judiciary of the United States Senate, reviews the results of three studies on the frequency and severity of medical malpractice claims. The findings of the three studies suggest that caps on awards and collateral source offset have significantly reduced claims severity; and collateral source offset and shorter statutes of repose have significantly reduced claims frequency. The author cautions that, from a public policy perspective, the goal of tort reform should not be simply to reduce the costs of claims and of malpractice insurance. Rather, reforms should be evaluated in the broader context of the fundamental purposes of the tort system, which are deterrence of medical negligence and efficient compensation of its victims.

Darby, Michael R.

PD August 1986. **TI** The Ins and Outs of Unemployment: The Ins Win. **AU** Darby, Michael; Haltiwanger, John C.; Plant, Mark W. **AA** Darby, Plant: University of California at Los Angeles. Haltiwanger: Johns Hopkins University. **SR** National Bureau of Economic Research Working Paper: 1997; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 820, 023. **KW** Unemployment. Exit Probabilities.

AB This paper develops a framework for analysing unemployment in terms of variations in the number and distribution of people becoming unemployed and in individual probabilities of leaving unemployment. Contrary to the emphasis on exit probabilities in the recent macroeconomics literature, we present empirical evidence in support of the proposition that changes in the size and distribution of the inflow into unemployment are the primary determinant of the unemployment rate. Instead of falling at the beginning of a recession, the outflow rate rises (with a lag) in response to the increased inflows which drive the recession. In contrast to normal unemployment, cyclical unemployment is concentrated in groups with low normal exit probabilities; so the observed procyclical variation in the average exit probability may largely be explained by predictable distributional effects.

PD July 1986. **TI** The Internationalization of American Banking and Finance: Structure, Risk, and World Interest Rates. **AA** University of California, Los

Angeles. **SR** National Bureau of Economic Research Working Paper: 1989; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 312, 441. **KW** Banking. International Banking. Risk.

AB The transformation of American banking from the parochialism of 1960 to the internationally linked structure of the 1980s is analysed and detailed quantitatively. While the liberalisation of trade and the existence of and changes in financial regulations profoundly affected the pace and order of this transformation, it is argued that international banking is the historic norm. International banking on the one hand provides the opportunity to banks to diversify their portfolio, but may simultaneously expose them to increased systematic risk, especially with regards to movements in the United States real interest rate. Deposit insurance provides an incentive for banks to take on such priced systematic risk with welfare costs which must be balanced against the welfare gains from the insurance. The paper closes with an exploration of the nature of the linkage of major movements in real interest rates and exchange rates. Further research seems warranted on monetary-policy-regime changes and investment-demand shifts as a result of changes in tax, regulatory, and political climate.

Dastoor, Naorayex K.

PD May 1986. **TI** On the Consistency of Joint and Paired Tests for Non-nested Regression Models. **AU** Dastoor, Naorayex K.; McAleen, Michael. **AA** *Dastoor: Department of Economics, University of Alberta.* McAleen: Department of Statistics, Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 134; Faculty of Economics and Commerce, Australian National University. **PG** 27. **PR** No Charge. **JE** 211. **KW** Cox-Type Tests. Linear Regression Models. Multiple Non-nested Alternatives. Single Non-Nested Alternative. Test Consistency. Wald Test.

AB In this paper we examine the consistency properties of some tests of a null model against a single non-nested alternative and against multiple non-nested alternatives, denoted hereafter as paired and joint tests, respectively. Consistency of a test with respect to the true model is defined, and the consistencies of some paired and joint tests are evaluated. Firstly, it is demonstrated that even when all possible paired comparisons are made, the paired tests may be inconsistent unless the true alternative is used. Secondly, a joint test can be consistent when the paired Wald test based on the comprehensive model may be inconsistent, thereby formalising the notion that a joint test may be more widely consistent than a paired test. Finally, we compare the finite sample powers of the joint and paired Wald tests to show that when the fixed (i.e. non-local) alternative for the paired test is true, the power of the joint test can never exceed that of the paired test.

DaVanzo, Julie

PD October 1983. **TI** Ethnic Differences in Income in Peninsular Malaysia: Their Sensitivity to the Definition and Measurement of Income. **AU** DaVanzo, Julie; Kusnic, Michael. **AA** Rand. **SR** Rand Paper: P-7097; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 25. **PR** No Charge. **JE** 225. **KW** Income Distribution. Malaysia.

AB Data from the 1976-77 Malaysian Family Life Survey are used to examine the sensitivity of conclusions about ethnic differentials in well-being, or "income," to decisions about how to define and measure income and how to summarise its distribution. Measured income differentials are sensitive to how broadly income is defined; to how its distribution is summarised; and to whether one controls for differences in household size and composition, hours of work, urban/rural locations, and other sociodemographic characteristics. For example, depending on the measures chosen, estimates of the amount by which Chinese income exceeds Malays' range from 17 percent to 177 percent. Nonetheless, for all income measures considered, the vast majority of overall income inequality in Peninsular Malaysia is due to differences within ethnic groups rather than among them. These findings have important implications for the formulation, effectiveness, and evaluation of policies designed to affect economic well-being.

TI Age At Menarche In Peninsular Malaysia: Time Trends, Ethnic Differentials, And Association With Ages At Marriage and at First Birth. **AU** Ann, Tan Boon; Othman, Ramli; Buts, William P.; DaVanzo, Julie.

TI Accounting For Nonmarket Activities In The Distribution of Income: An Empirical Investigation. **AU** Kusnic, Michael W.; DaVanzo, Julie.

TI The Contraceptive Role of Breastfeeding. **AU** Habicht, Jean Pierre; DaVanzo, Julie; Buts, William P.; Meyers, Linda.

PD May 1985. **TI** Measuring Community Variables for Household Health and Demographic Surveys in Developing Countries. **AA** Rand. **SR** Rand Paper: P-7099; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 7. **PR** No Charge. **JE** 841, 228. **KW** Health Data Collection. Community Variables.

AB This paper points out the value of collecting data for household health and demographic surveys at the community level, since they provide information on factors affecting health and survival that are often directly manipulable by policies and programs, and are also most likely to be independent of household decision making. It identifies the data that would be useful for health and demographic surveys in the areas of availability, prices, and type and quality of services provided in the public and private sectors, and notes some issues in survey design and data collection.

PD June 1985. **TI** Infant Mortality and Economic Development: The Case of Malaysia. **AA** Rand. **SR** Rand Paper: P-7110; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 25. **PR** No Charge. **JE** 841. **KW** Malaysia. Infant Mortality Rate. Socioeconomic Development.

AB Household data from the Malaysian Family Life Survey are used to assess the roles of mortality correlates in explaining the inverse relationship between the infant mortality rate (IMR) and socioeconomic development. Increases in mothers' education and improvements in water and sanitation are the most important changes that accompany regional and temporal development and contribute to the inverse relationship between the IMR and development. One concomitant of development -- reduced breastfeeding -- has kept the relationship from being even stronger. However, these variables explain only a small portion of the difference in the IMR between more and less developed areas and times. For the regional comparison, differences in the ethnic composition of the poorest and other states of Malaysia explain the remainder of the difference. The appendix explicitly examines which relationships have changed with development and finds that the beneficial effect of supplemented breastfeeding in promoting survival became weaker with development.

Day, Richard H.

PD August 1985. **TI** Irregular Fluctuations in Competitive Markets with Production Lags. **AU** Day, Richard H.; Hanson, Kenneth A. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8514; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 28. **PR** No Charge. **JE** 022. **KW** Production Lags. Cobweb Model. Competitive Markets.

AB This paper shows how changing patterns of change and irregular or chaotic fluctuations arise in deterministic, competitive markets with production lags using (1) the standard cobweb model with a backward bending supply function and (2) the Robertson-Williams cobweb model with financially constrained supply.

PD August 1985. **TI** Endogenous Preferences and Adaptive Economizing. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8516; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 32. **PR** No Charge. **JE** 022. **KW** Preference Reversal. Intertemporally Optimal Behavior.

AB Our concern is with economizing behavior when preferences depend on experience. It is shown that such a dependence, reflecting 'deep psychological structure', even when it is stable or habit forming in a fixed environment, can be destabilising in a market context when prices are adjusting, even when the latter process is stable when preferences are fixed. 'Preference reversal' is then shown to be a cause of cyclic or nonperiodic sequences of rational choices, thus providing an explanation both of normal variety and addictive binges in consumption. The relationship between cyclicity and intertemporal consistency is discussed. It is suggested that intertemporally optimal behavior is in principle not possible. Instead, behavior must be governed by adaptive economising procedures which have only an approximate, local and imperfectly far-sighted rationality.

PD October 1985. **TI** Policy, Prediction and Intrinsic Business Fluctuations. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8525; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 23. **PR** No Charge. **JE** 132, 023, 311, 321. **KW** Macroeconomic Models. Stability.

AB Within the range of parameter values advocated by various authorities, the standard deterministic macroeconomic model can exhibit stable stationary states, stable periodic cycles, or irregular, nonperiodic fluctuations. Moreover, when the latter occur they have the appearance of a stationary, stochastic process. It is shown, further, how monetary or fiscal policies can attenuate or exacerbate fluctuations and how they can trigger an economy into or out of a regime of unpredictable, non-periodic behavior.

de Ghellinck, Guy

PD 1986. **TI** A Polynomial Newton Method for Linear Programming. **AU** de Ghellinck, Guy; Vial, Jean Philippe. **AA** CORE, Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8614; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 32. **PR** No Charge. **JE** 213. **KW** Linear Programming. Polynomial Complexity. Newton Method.

AB An algorithm is presented for solving a set of linear equations on the nonnegative orthant. This problem can be made equivalent to the maximisation of a simple concave function subject to a similar set of linear equalities and bounds on the variables. A Newton method can then be used which enforces a uniform lower bound which increases geometrically with the number of iterations. The basic steps are a projection operation and a simple line search. It is shown that this procedure either proves in at most k=0(n*n*m*m*l) operations that there is no solution or else computes an exact solution in at most k operations. The linear programming problem is treated as a parametrized feasibility problem and solved in at most k operations.

de Janvry, Alain

PD January 1986. **TI** Peasants, Capitalism, and the State in Latin American 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: 396; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 25. **PR** $5.00. **JE** 121, 813. **KW** Latin American Agriculture. Peasants. Capitalism. Social Formation.

AB The peasant constants (family-based production, social domination, and defensive strategies) occurring in the context of specific social formations lead to markedly different outcomes in terms of the production performance, welfare, social differentiation, and permanence of peasants. We analyse in this chapter the position of peasants in present-day Latin America. Because of lack of space, we only provide a limited factual characterisation of Latin American peasants today (for which see, e.g., Pearse, 1975; Goodman and Redclift, 1984; de Janvry, 1981) but develop a theoretical framework that permits an understanding of their continued permanence and continued poverty, stressing, in particular, the role that the state plays in these dynamic processes.

PD July 24, 1986. **TI** The Conditions for Harmony Between Third-World Agricultural Development and United States Farm Exports. **AU** de Janvry, Alain; Sadoulet, Elisabeth. **AA** Department of Agricultural and Resource Economics University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 424; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 43p. **PR** $8.60. **JE** 420, 711, 121. **KW** Farm Exports. Third-World. Agricultural Development.

AB Rapid income growth in DCs has been identified as the most important potential source of increased demand for United States agricultural exports. While this is obvious for situations where the leading sectors of economic growth are export oriented (primary products, cash crops, or industry), claims have also been made that it could be achieved by a strong growth performance in food production induced, in particular, by diffusion of land-saving technological change. If this is the case, international assistance to food production in the DCs would be compatible with the promotion of United States exports of food and feed grains. We call the "frontier of harmony" the limiting conditions under which this compatibility of interests exists. The purpose of this paper was to explore the location of this frontier and the policy instruments that can enlarge the area where harmony prevails.

PD August 1986. **TI** Agricultural Growth in Developing Countries and Agricultural Imports: Econometric and General Equilibrium Analyses. **AU** de Janvry, Alain; Sadoulet, Elisabeth. **AA** Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics Working Paper: 424, Rev.; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 43. **PR** $8.60. **JE** 713, 621. **KW** General Equilibrium Analyses. Developing Countries. Agricultural Growth. Agricultural Imports. Technological Change. Industrialisation.

AB This paper's argument is developed in two steps. In the first, econometric analysis is used to show that most countries with successful agricultural growth have also been able to sustain rapid industrial growth and rapid growth of per capita income. The result in many situations has been to increase the demand for cereal imports, particularly feed grains in the NICs and the oil-exporting countries. This econometric model makes it possible to identify the levels of trade dependency and the composition of domestic agricultural growth that result in positive elasticities of import demand relative to agricultural growth. In the second step a two-sector, open-economy, general-equilibrium dynamic model is developed for archetype economies at different levels of Gross National Product per capita to explore under what conditions and with what time lags technological change in cereal production (the Green Revolution) may create income effects that are sufficiently strong to increase the demand for food or feed grain imports. This model allows the identification of the parameter values that create this effect. It provides policy guidelines to design international aid programs complementary to technological change in food production that will allow the protection of grain export markets for the United States and other exporters. The paper concludes with recommendations as to how to maximize compatibility between foreign assistance programs and United States farm export interests.

de Melo, Jaime

PD June 1986. **TI** The Treatment of Foreign Trade in Computable General Equilibrium Models of Small Economies. **AU** de Melo, Jaime; Robinson, Sherman. **AA** de Melo: Development Research Department, The World Bank. Robinson: 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: 419; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 31 p. **PR** $6.20. **JE** 411, 021. **KW** Foreign Trade. General Equilibrium Models. Elasticities.

AB This paper examines the treatment of exports and imports, i.e. external closure rules adopted in recent single-country general equilibrium models of small economies. The paper presents the simplest one-sector analytic version corresponding to the multi-sector counterpart in applied models. The paper derives graphical and algebraic solutions to the model and shows that, unlike earlier external closures, this one gives rise to a well-behaved price-taking economy. The model is also useful to illustrate the role of elasticities in popular trade-theoretic models including traded and non-traded goods.

de Palma, Andre

TI Departure Time and Route Choice for Routes in Parallel. **AU** Arnott, R.; de Palma, A.; Lindsey, R.

TI Market Equilibrium and Optimal Product Diversity: A Logit Specification. **AU** Anderson, Simon; de Palma, Andre.

De Tray, Dennis N.

TI Distributional Impacts of the Property Tax Revolt. **AU** Fernandes, Judith C.; De Tray, Dennis N.

PD January 1985. **TI** Schooling Policy in Malaysia. **AA** Rand. **SR** Rand Report: R-3147-AID; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 27. **PR** No Charge. **JE** 912, 121. **KW** Schooling. Malaysia.

AB This policy study builds on an empirical analysis of schooling trends and recent enrollment in Malaysia which was published as Rand Note N-2011-AID. That analysis indicated that school attendance is heavily influenced by family income, school location, and availability of transportation. Using actual levels of Malaysian secondary-school attendance as the base case, the present study calculates what attendance levels would be if each of these family or community characteristics were changed, but all others remained the same. The study's results indicate that although economic growth, as reflected in family income, has done much to promote Malaysia's rapid growth in education levels, rising incomes may have only marginal effects in the future. Consequently, school location and transportation show more promise as policy options, but will not affect all subpopulations to the same degree.

Deprins, Dominque

PD March 1986. **TI** Maximum Likelihood Estimation of Production Functions With Gamma Residuals and Exogenous Factors of Inefficiency. **AA** Centre for Operations Research and Econometrics, Universite Catholique de Louvain and SMASH, Facultes Universitaires Saint-Louis, Bruxelles. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8609; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 11. **PR** No Charge. **JE** 211. **KW** Deterministic Frontier Functions. Maximum Likelihood. Scoring.

AB A maximum likelihood method of estimation is proposed to estimate deterministic frontier functions. A particular Gamma distribution is chosen for the residuals allowing the introduction of exogenous factors of inefficiency. This is done through a loglinear structure for the regression of the one-sided residuals on these inefficiency factors. In this paper, the asymptotic variance of the maximum likelihood estimation of the parameters of the model is derived. A scoring method avoiding the cumbersome maximisation of the likelihood function is proposed, leading algebraically to estimators having the same properties as the Maximum Likelihood Estimation.

Dertouzos, James N.

PD January 1985. **TI** Bargaining Responses to the Technology Revolution The Case of the Newspaper Industry. **AU** Dertouzos, James N.; Quinn, Timothy H. **AA** Rand. **SR** Rand Report: R-3144-DOL; Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 74. **PR** No Charge. **JE** 621, 631. **KW** Technology. Newspaper Industry. Diffusion. Labor Displacement.

AB This report documents the results of research on how the bargaining relationship between workers and firm managers affects the introduction of new technologies. Using data from the newspaper industry, the research documents the extent of technology diffusion and labor displacement, and explains why firms and workers under varying circumstances rely on different bargaining responses to incorporate new technologies into production processes. The following are among the main empirical results: (1) Worker layoffs are rare; (2) nonunion firms are no less likely to compensate workers than union firms; (3) the most frequently observed bargaining response is natural attrition; (4) nonunion firms exhibit greater reliance on programs to retrain workers for other jobs in the firm; and (5) group-owned newspapers did not adopt the new technology more quickly. Other characteristics with predictable effects on response decisions quantified in this report include the size of the firm, market growth, whether the firm was purchased near the time of technology adoption, and the age distribution of workers.

PD May 1985. **TI** Recruiter Incentives and Enlistment Supply. **AA** Rand. **SR** Rand Report: R-3065-MIL; Rand Corporation, 1700 Main Street,P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 51. **PR** No Charge. **JE** 114, 810. **KW** Army Recruiting. Recruiter Quotas. Enlistments.

AB In an empirical study of Army recruiting data, Rand concluded that demand factors such as recruiter quotas and incentives to achieve and exceed them play a critical role in the determination of enlistments. Recruiters who achieve high-quality quotas are less likely to be induced by existing incentives to increase their productivity than are those who do not achieve high-quality quotas. Thus, resource expenditures meant to induce an increase in potential supply may not result in actual high-quality enlistments because recruiters do not have incentives to secure them. Two major research and policy implications emerge: (1) future attempts to project enlistments or to analyse the role of supply factors must consider demand factors explicitly; (2) the effectiveness of resource expenditures can be enhanced dramatically if appropriate incentives exist for recruiters.

PD September 1985. **TI** Contractual Responses to Structural Changes In Labor Markets. **AU** Dertouzos, James N.; Quinn, Timothy H. **AA** Rand. **SR** Rand Paper: P-7137; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 42. **PR** No Charge. **JE** 824, 635, 833, 621. **KW** Newspaper Industry. New Technologies. Labor Market. Structure change. Compensation. Bargaining.

AB This paper presents an empirical analysis of the employment adjustments of the daily newspaper industry in response to a major long-term structural change in the demand for labor that has occurred over the past quarter century due to new technologies. The authors present a bargaining framework for analyzing worker-manager responses to structural changes, and find that when long-term contractural relationships exist, displaced workers are likely to receive some form of compensation for their jobs. The authors also develop a simple model to understand the types of compensation that are more likely to emerge, and present a detailed empirical analysis of the bargaining outcomes adopted to introduce the new technologies. They conclude that the existence of compensation does not depend on factors such as the collective structure of organized workers or the absence of a powerful conglomerate. Different institutional and market influences may affect the form of compensation, but not whether it occurs. Finally, they suggest that workers have few incentives to resist technological change, because new technologies are not introduced without regard for worker welfare.

Diba, Behzad

PD July 1986. **TI** On the Inception of Rational Bubbles in Stock Prices. **AU** Diba, Behzad; Grossman, Herschel I. **AA** Brown University. **SR** National Bureau of Economic Research Working Paper: 1990; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 520. **KW** Bubbles. Rational Bubbles. Stock Prices.

AB This paper analyses the theoretical possibility of rational bubbles in stock prices in a model in which stockholders have infinite planning horizons and in which free disposal of equity rules out the existence of negative rational bubbles. The analysis shows that in this framework if a positive rational bubble exists, then it started on the first date of trading of the stock. Thus, the existence of a rational bubble at any date would imply that the stock has been overvalued relative to market fundamentals since the first date of trading and that prior to the first date of trading potential stockholders who anticipated the initial pricing of the stock expected that the stock would be overvalued relative to market fundamentals. The analysis also shows that any rational bubble will eventually burst and will not restart. Thus, even if a positive rational bubble exists, stockholders know that after a random, but almost surely finite, date the stock price will conform to market fundamentals forever.

Dinneen, P. M.

PD January 1985. **TI** Improving MILSATCOM Acquisition Outcomes: Lease Versus Buy. **AU** Dinneen, P. M.; Quinn, T. H. **AA** Rand. **SR** Rand Note: N-2209-AF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 44. **PR** No Charge. **JE** 114, 322. **KW** Military Sattelite Communications Systems. Military Acquisiton. Lease Versus Buy.

AB Over the next decade, military satellite communication (MILSATCOM) systems will cost taxpayers billions of dollars. The magnitude of these costs and their distribution in the economy will be directly affected by whether public policymakers choose to lease or buy these systems. This Note examines the arguments of leasing's opponents and proponents, and the conclusions suggested by past leasing experiences. The analysis demonstrates that by far the most important consideration in deciding whether to lease or buy MILSATCOM systems is the cost of risk-bearing, an issue that has largely been ignored in the public debate: under a purchase, risks are borne by taxpayers, whereas under a lease, they are borne by the shareholders of defense contractors. Based on their analysis, the authors suggest that the Department of Defense consider soliciting bids that specify terms for both lease and buy options on MILSATCOM systems, since the competitive bidding system has the potential to provide a great deal of information important to policy decisions in risk-bearing.

Djajic, Slobodan

PD October 1986. **TI** Migrants in a Guest-Worker System: A Utility-Maximising Approach. **AA** Queen's University; Institute for International Economic Studies, Stockholm, Columbia University. **SR** Queen's Institute for Economic Research Discussion Paper: 661; Department of Economics, Queen's University, Kingston, Ontario, K7L 3N6 CANADA K7L 3N6. **PG** 22. **PR** $2.50 Canada; $3.00 United States; $3.50 foreign. **JE** 821, 823. **KW** Temporary Migration. Migration. Optimal Saving. Leisure.

AB This paper examines the behavior of utility-maximizing migrants in a system of guest-worker migration. Their pattern of leisure and commodity consumption at home and abroad is analysed and related to those chosen by the natives of the host country and the non-migrants of the source country. The paper also highlights an important distinction between permanent and temporary migration. While a permanent migrant is primarily interested in the real-wage differential between countries of immigration and emigration, a guest worker's decision to migrate depends on both the real and the nominal differential. The relative importance of the nominal differential is found to be inversely related to the degree of concavity of his instantaneous utility function.

Donsimoni, M. P.

PD February 1986. **TI** Intertemporal Equilibrium and Disadvantageous Growth. **AU** Donsimoni, M. P.; Polemarchakis, H. M. **AA** Donsimoni: C.R.I.D.E., Universite Catholique de Louvain. Polemarchakis: Columbia University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8610; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 8. **PR** No Charge. **JE** 111. **KW** Growth. Autarkic Competitive Economy.

AB We show that growth may be disadvantageous in an autarkic competitive economy of overlapping generations with production and investment, in spite of Walrasian stability.

Drazen, A.

PD May 1986. **TI** Inflationary Consequences of Anticipated Macro-Economic Policies Part II: Budget Cuts. **AU** Drazen, A.; Helpman, E. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 18-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 38. **PR** No Charge. **JE** 133, 134, 023. **KW** Inflation. Stabilisation. Regime Switch.

AB We consider a model where for the existing level of government debt, the government's choice of expenditures, rate of monetary expansion and taxation imply a positive deficit inclusive of debt service. Government debt must therefore grow without bound for unchanged policy parameters, meaning current policies are unsustainable over the long run. We consider in detail stabilisation effected by cuts in government expenditures which close the deficit and hence freeze debt at its current level. We use an optimising model to study the time path of the rate of inflation and other variables before a stabilisation takes place, for given expectations about the timing of the stabilisation. When the date of a stabilisation is certain, inflation may rise, fall or stay constant before the stabilization. There will be a jump in the price level and a "blip" in the real interest rate at that point, even though the stabilization is fully anticipated. When the date of stabilization is uncertain, the real interest rate will be rising over time; and both nominal and real rates will include risk premia to compensate for the above mentioned jumps. A wide variety of paths for real balances and inflation are consistent with optimization and market clearing, including a path which replicates certain empirical characteristics of a hyperinflation. We study this last path in detail and include a detailed example.

PD May 1986. **TI** Inflationary Consequences of Anticipated Macro-Economic Policies. **AU** Drazen, A.; Helpman, E. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 20-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel

Aviv, ISRAEL. **PG** 60. **PR** No Charge. **JE** 133, 134, 023. **KW** Inflation. Stabilisation. Regime Switch.

AB We consider a model where for the existing level of government debt, the government's choice of expenditures, rate of monetary expansion, and taxation imply a positive deficit inclusive of debt service. Government debt must therefore grow without bound for unchanged policy parameters, meaning current policies are unsustainable over the long run. We consider stabilisations by means of tax or money growth increases or expenditure cuts to close the deficit and freeze government debt at its current level. We use an optimising model to study the time path of inflation and other variables before a regime switch, for given expectations about the nature of the switch. We examine both the certainty case and the case of uncertainty about timing of stabilisation or policy mix. Under certainty, stabilisation via increases in money growth implies a monotonically increasing inflation rate, via non-distortionary taxes a constant inflation rate, and via budget cuts eventually declining inflation. When only policy mix is uncertain, inflation before a regime switch will follow a path intermediate to those above, its exact nature depending on the probability assigned to various policies. Uncertainty about the timing of the switch means the pre-switch inflation rate will most likely fluctuate and may overshoot its steady state value. Both types of uncertainty will imply price jumps at the moment of a switch.

PD May 1986. **TI** Future Stabilisation Policies and Inflation. **AU** Drazen, A.; Helpman, E. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 22-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 38. **PR** No Charge. **JE** 133, 134. **KW** Inflation. Stabilisation. Regime Switch.

AB We consider a model where for the existing level of government debt, the government's choice of expenditures, rate of monetary expansion, and taxation imply a positive deficit inclusive of debt service. Government debt must therefore grow without bound for unchanged policy parameters, meaning current policies are unsustainable over the long run. We consider changes in fiscal and monetary policy parameters to close the deficit and stabilise via freezing government debt at its current level. We use an optimising model to study the time path of inflation and other variables before a regime switch for given expectations about the nature of the stabilization. We consider only the case where the timing of a stabilisation and policy mix used to effect it are known with certainty, but we consider a wider range of instruments than those considered in our other papers. We also include a labor-leisure choice absent in our other papers. Stabilisation via an increase in the rate of money growth implies a monotonically increasing inflation rate, while one via increased non-distortionary taxation implies a constant inflation rate. Stabilisation via budget cuts implies that inflation may initially downward price jump at the moment of stabilisation. Stabilisation via distortionary labor income taxes implies a path which is the mirror image of that for stabilisation effected by budget cuts. Finally, stabilisation effected by a discrete asset switch due to an open-market operation implies a monotonically rising inflation rate until the time of stabilisation, followed by a discrete fall in the inflation rate at the moment of the open market operation.

Driffill, John

TI Credible Disinflation in Closed and Open Economies. **AU** Backus, David; Driffill, John.

Duan, Naihua

PD January 1985. **TI** Application of the Microenvironment Monitoring Approach to Assess Human Exposure to Carbon Monoxide. **AA** Rand. **SR** Rand Report: R-3222-EPA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 97. **PR** No Charge. **JE** 722, 913. **KW** Carbon Monoxide. Microenvironment Monitoring. Pollution.

AB This study applies the microenvironment monitoring (MEM) approach to estimate human exposure to carbon monoxide (CO), using activity time data from the Washington Urban Scale Study and CO concentration data from the CO Microenvironment Study. The estimated exposures based on the MEM approach are then compared with estimated exposures based on the personal monitoring or direct approach (the PM exposures). A substantial discrepancy appears between these exposures, the MEM exposures being about 40 percent higher. However, despite the discrepancy, the MEM exposure is found to be a powerful predictor for the PM exposure. On the log scale, the MEM exposure has the correct span relative to the PM exposure; the discrepancy between the two sets of exposure estimates is found to be a constant drift. The results reported here should be considered as an illustration and should be generalised only with caution to future exposure studies, which should give higher priority to the enhanced personal monitoring (EPM) approach when feasible. When the MEM approach is the only feasible approach, the sampling of microenvironments should be carried out using either the weighted sampling scheme or the simulated human activity scheme.

TI The Effect of Cost Sharing on the Use of Medical Services by Children - Interim Results from a Randomized Controlled Trial. **AU** Leibowitz, Arleen; Manning, Willard G. Jr; Keeler, Emmett B.; Duan, Naihua; Lohr, Kathleen N.; Newhouse, Joseph P.

TI Research Plan For The Preferred Provider Organisation Study. **AU** Ginsberg, Paul B.; Hosek, Susan D.; Duan, Naihua; Luft, Harold S.; Marquis, Susan; Turner, Joan B.

Dumenil, Gerard

PD September 1986. **TI** Desequilibre et Stationarite (Disequilibrium and Stationarity). **AU** Dumenil, Gerard; Levy, Dominique. **AA** Dumenil: O.F.C.E. (Paris). Levy: CEPREMAP - CNRS. **SR** CEPREMAP Discussion Paper: 8616; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 27. **PR** 20 FF. **JE** 022. **KW** Disequilibrium Microeconomics. Dynamic Model. Regimes. Stationary Disequilibrium. Pitchfork.

AB The dynamic model presented in this article is based on the idea that it is possible to construct a disequilibrium microeconomics in which agents react to the evidence of disequilibrium (inventories of unsold commodities, nonnormal ratio of capacity utilisation of fixed capital, etc.). In a one good model, we describe the set of fixed points. In addition to normal equilibrium, two stationary disequilibria also exist (or regimes of long term disequilibrium): overheating and inferior states (called "Keynesian states"). The set of fixed points which are locally stable displays the shape of a pitchfork. (Paper in French).

PD September 1986. **TI** La Dynamique du Capital. I.-L'Equilibre Classique (The Dynamics of Capital. I.-Classical Equilibrium). **AU** Dumenil, Gerard; Levy, Dominique. **AA** Dumenil: O.F.C.E. Levy: CEPREMAP - CNRS. **SR** CEPREMAP Discussion Paper: 8618; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 26. **PR** 20 FF. **JE** 022. **KW** Disequilibrium Microeconomics. Dynamic Model. Gravitation. Price of Production.
AB In this article, we show that the analysis of competitive mechanisms by the classics (Smith, Ricardo, Marx) can be used as a point of departure for the construction of a disequilibrium microeconomics. On this basis, we build a dynamic model (with fixed capital) in which one fixed point corresponds to the long term classical equilibrium. The stability of the model is shown using computer simulation. The convergence of a number of fast variables in the short run, prior to the formation of prices of production, is also analysed.

PD September 1986. **TI** La Dynamique du Capital. II.-Les Desequilibres Stationnaires et la Crise (The Dynamics of Capital. II-Stationary Disequilibria and Crisis). **AU** Dumenil, Gerard; Levy, Dominique. **AA** Dumenil: O.F.C.E. Levy: CEPREMAP-CNRS. **SR** CEPREMAP Discussion Paper: 8619; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 37. **PR** 20 FF. **JE** 022, 131. **KW** Dynamic Model. Regimes. Stationary Disequilibria. Pitchfork. Crisis. Inflation. Rate of Profit.
AB This article uses the model presented in the first part of this study (Classical Equilibrium). We show that the long term classical equilibrium (prices of production) is not the only fixed point in the model. Two other regimes of long term disequilibrium can be identified: overheating and inferior States of the Keynesian type. Crises of overproduction can also be generated. The conditions for the stability of the capitalist system are discussed (in particular, in relation to the profitability of capital). Some remarks are also presented concerning the effectiveness of policies in the various regimes. The model leads to an interpretation of the evolution of the forms of the business cycle. The United States economy is used as an example. The thesis of a tendential increasing instability is related to the Marxist thesis of the tendency for the rate of profit to fall. (Paper in French).

Dunz, Karl

TI The Welfare Theorems and Economies with Land and a Finite Number of Traders. **AU** Berliant, Marcus; Dunz, Karl.

Dutta, Jayasri

PD June 1986. **TI** The Structure of Econometric Specification: Model Building with Incomplete Restrictions. **AU** Dutta, Jayasri; Mouchart, Michel. **AA** Dutta: Barnard College. Mouchart: Universite Caholique de Louvain, C.O.R.E. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-27; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 19. **PR** $5.00 academics and non-profit institutions; $6.00 corporations (add $1.00 outside United States, Canada and Puerto Rico). **JE** 211, 212. **KW** Generalized Statistical Models. Reduction. "Extension". Specification. Completeness.
AB This paper deals with the problem of statistical model-building with incomplete parametric restrictions. A set of restrictions is incomplete if they do not lead to an indexed family of sampling distributions, with the parameters as the index. We show that they may nevertheless lead to an indexed family of equivalence classes, or a generalised statistical model. This construct is useful in analyzing model reductions and extensions, and the analysis of specification of econometric models.

Eden, Rick A.

TI Educational Expectations and Enlistment Decisions. **AU** Hosek, James R.; Peterson, Christine E.; Eden, Rick A.

Edison, Hali J.

PD July 1986. **TI** An Empirical Analysis of Policy Coordination in the United States, Japan and Europe. **AU** Edison, Hali J.; Tryon, Ralph. **AA** International Finance Division, Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 286; International Finance Division Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 33. **PR** No Charge. **JE** 023, 320, 431, 423. **KW** Policy Coordination. Fiscal Policy. Monetary Policy. International Economic Policy.
AB Coordination of macroeconomic policy has been a major topic at recent summit meetings, and has been the subject of a number of theoretical studies. However, relatively little empirical research exists on policy coordination. This paper is an attempt to help fill this gap. The paper considers the quantitative importance of the coordination of fiscal and monetary policy under flexible exchange rates. We also evaluate the mechanisms by which the effects of macroeconomic policy are transmitted abroad. The nature of the equilibrium reached in the absence of coordination is also analysed, and the empirical results are related to the theoretical literature. The analysis is based on simulations with the Multicountry Model (MCM) developed at the Federal Reserve Board.

Eichenbaum, Martin

PD July 1986. **TI** A Time Series Analysis of Representative Agent Models of Consumption and Leisure Choice Under Uncertainty. **AU** Eichenbaum, Martin; Hansen, Lars Peter; Singleton, Kenneth J. **AA** Eichenbaum and Singleton: Carnegie-Mellon University. Hansen: University of Chicago. **SR** National Bureau of Economic Research Working

Paper: 1981; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge MA 02138. **PR** $2.00. **JE** 023, 025, 026. **KW** Representative Agent Models. Consumption. Leisure. Uncertainty.

AB This paper investigates empirically a model of aggregate consumption and leisure decisions in which goods and leisure provide services over time. The implied time non-separability of preferences introduces an endogenous source of dynamics which affects both the co-movements in aggregate compensation and hours worked and the cross-relations between prices and quantities. These cross-relations are examined empirically using post-war monthly United States data on quantities, real wages and the real return on the one-month Treasury bill. We find substantial evidence against the overidentifying restrictions. The test results suggest that the orthogonality conditions associated with the representative consumer's intratemporal Euler equation underlie the failure of the model. Additionally, the estimated values of key parameters differ significantly from the values assumed in several studies of real business models. Several possible reasons for these discrepancies are discussed.

Eichengreen, Barry

PD August 1986. **TI** The Political Economy of the Smoot-Hawley Tariff. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 2001; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 042, 420, 441. **KW** Smoot-Hawley Tariff. Economic History. Great Depression.

AB Economic histories of the interwar years view the Great Depression and the Smoot Hawley Tariff as inextricably bound up with one another. They assign a central role to the Depression in explaining the passage of the 1930 Tariff Act and at the same time emphasize the role of the tariff in the propogation of the Depression. This paper argues that popular accounts have conveyed what is at best an incomplete and at worst a misleading impression of the relationship between the tariff and the Depression. Rather than simply strengthening the hand of a Republican Executive predisposed toward protection or increasing the burden borne by a depressed agricultural sector, the uneven impact of the Depression occasioned the birth of a new protectionist coalition comprised of producers particularly hard hit by import competition: border agriculture and small-scale industry engaged in the production of specialty goods. Rather than leading to a dramatic across-the-board decline in the volume of United States imports, the tariff had very different effects across sectors. Rather than worsening the Great Depression by reducing foreign demands for United States exports, the direct macroeconomic effect of the tariff is likely to have been expansionary. This remains true even when feedbacks to the United States and foreign retaliation are analysed. In any case, relative to the Depression, the direct macroeconomic effects of the tariff were small. If Smoot-Hawley had significant macroeconomic effects, these operated instead through its impact on the stability of the international monetary system and the efficiency of the international capital market.

Eldor, R.

PD May 1986. **TI** Oligopoly, Uncertain Demand and Forward Markets. **AU** Eldor, R.; Zilcha, I. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 14-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 18. **PR** No Charge. **JE** 022, 026, 611. **KW** Oligopoly. Forward Market. Demand Uncertainty.

AB This paper studies the behavior of oligopoly under demand uncertainty. We assume that each firm is a risk averse expected utility maximizer. The effects of price uncertainty and risk aversion upon the Nash equilibrium output has been studied. Introducing unbiased forward markets increases production at Nash equilibrium; however, in some cases, all firms may end up worse off in the presence of such forward markets, even though risk aversion is assumed.

Erenguc, S. Selcuk

TI On the Weighted Selection Algorithm for Certain Linear Programs With Nested Constraint Coefficients. **AU** Benson, Harold P.; Erenguc, S. Selcuk.

PD August 1985. **TI** An Algorithm for Solving a Class of Linear Programming Problems - Revised. **AA** University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 123; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 17. **PR** No Charge. **JE** 213. **KW** Linear Programming. Knapsack Problems.

AB We present a procedure for solving a class of specially structured linear programs. Our approach consists of solving a sequence of continuous knapsack problems each of which requires linear time to solve. The computational effort required by the procedure is proportional to the number of nonzero entries in the constraint matrix. The model arises in portfolio selection, advertising, inventory and production planning and interval linear programming.

PD September 1985. **TI** A Branch and Bound Algorithm for a Multi-Product Dynamic Lot Sizing Model With Individual and Joint Setup Costs. **AA** University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 125; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 33. **PR** No Charge. **JE** 512, 213. **KW** Multiproduct Lot Sizing. Concave Costs. Branch and Bound. Optimal Ordering Schedule.

AB In this paper we consider a multi product dynamic lot sizing model. In addition to a separate set up cost for each product ordered, a joint setup cost is incurred when at least one product is ordered. We present a finite branch and bound algorithm for finding an optimal ordering schedule. Superiority of the branch and bound algorithm to the existing exact procedures is demonstrated. We report computational experience with problems whose dimensions render the existing exact procedures computationally infeasible.

TI Coordinated Multi-Item Lot Sizing At A Single

Stage: A Survey. **AU** Birgil, Yasemin A.; Erenguc, S. Selcuk.

PD May 1986. **TI** A Branch and Bound Algorithm for a Single-Item Multi-Source Dynamic Lot Sizing Problem With Capacity Constraints. **AU** Erenguc, S. Selcuk; Tufekci, Suleyman. **AA** Department of Economics, University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 128; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 30. **PR** No Charge. **JE** 512, 213. **KW** Dynamic Lot Sizing Problem. Branch and Bound.

AB In this paper we present a branch and bound algorithm for solving a single-item, multi-source dynamic lot sizing problem with time-varying capacity constraints. We consider a single-item production (and/or procurement) environment where there are multiple sources of supply with different cost structures. We present computational results with the algorithm and discuss several extensions.

Ermisch, John F.

PD July 1986. **TI** Impacts of Policy Actions on the Family and the Household. **AA** NIESR. **SR** Centre for Economic Policy Research Discussion Paper: 116; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 42. **PR** 1 pound sterling ($2.00) individuals; 1.50 pound sterling ($3.00) companies, libraries, institutions. **JE** 841, 813, 024. **KW** Household Formation. United Kingdom Social Policy. Equal Opportunities for Women. Timing of Marriage and Births. Housing Policy. Unemployment. Divorce.

AB This paper discusses the impacts of a range of economic and social policies on family and household formation and dissolution, with particular reference to Great Britain. While this focus was suggested by the author's familiarity with developments in the United Kingdom, it also represents a particularly interesting case since there have been many important policy changes there in the past fifteen years which have affected marriage, fertility, divorce and household formation. During the 1970s, equal pay policies altered the timing of marriage and fertility, and they may have affected the likelihood of divorce. Reform of the law concerning divorce accelerated the upward trend in divorce, and monetary and fiscal policies designed to reduce inflation have also increased unemployment. Lower inflation and higher unemployment have tended to alter the timing of childbearing and the likelihood of divorce. Housing policies have continued to influence the timing of marriage and childbearing and the patterns of household formation by "marginal" groups such as the young and the elderly. Attempts have been made to measure these impacts, but much more research is necessary in order to properly assess the impact of government policy in a range of areas on patterns of family and household formation and dissolution.

Faigle, Ulrich

PD July 1986. **TI** The Bandwidth of Planar Distributive Lattices. **AU** Faigle, Ulrich; Giers, Gerhard. **AA** Faigle: University of Bonn. Giers: University of California at Riverside. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86424; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 12. **PR** No Charge. **JE** 213. **KW** Finite Tight Suborders. Planar Distributive Lattices. Ordered Bandwidth Problem.

AB The ordered bandwidth problem for finite tight suborders P of (IN)**2 with (0,0) in P and hence, in particular, for planar distributive lattices is considered. The following sharp bounds in terms of the width are derived for such orders: w(P)<=bw(P)<=w(P)+1.

Feenstra, Robert C.

PD July 1986. **TI** Gains From Trade in Differentiated Products: Japanese Compact Trucks. **AA** University of California, Davis. **SR** National Bureau of Economic Research Working Paper: 1978; National Bureau of Economic Research 1050 Massachusetts Avenue Cambridge MA 02138. **PR** $2.00. **JE** 420, 615, 631, 022. **KW** Motor Vehicles. Differentiated Products. Gains From Trade. Hedonic Regression.

AB We present a methodology for estimating the welfare gains from a product with new characteristics, and apply it to Japanese and American compact trucks. Our approach can be used on any products for which a hedonic regression can be estimated. For 1979-80 we find average welfare gains of $500-600 per Japanese truck. In later years the benefit to consumers is reduced by the tariff on imports and the introduction of American compact models. American compacts have consumer gains which are much less than the average for Japanese models, since for each American compact there is an import with very similar characteristics.

PD July 1986. **TI** Incentive Compatible Trade Policies. **AA** University of California, Davis. **SR** National Bureau of Economic Research Working Paper: 1977; National Bureau of Economic Research 1050 Massachusetts Avenue Cambridge MA 02138. **PR** $2.00. **JE** 411, 420. **KW** Trade Policy. Incentive Compatible Trade Policy. Production Uncertainty.

AB We consider a two country trade model with production uncertainty. If complete contingent markets do not exist, it is desirable for governments to adopt some trade policies to share the production risk. A full information policy involves income transfers across countries, which can be achieved by equal import tariffs and export subsidies. With incomplete information we consider incentive compatible trade policies, which are designed to be truth revealing while partially sharing the production risk. In this case the tariff in one country may differ from the export subsidy abroad.

Feldstein, Martin

PD July 1986. **TI** Budget Deficits, Tax Rules, and Real Interest Rates. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 1970; National Bureau of Economic Research, 1050 Massachusetts Avenue Cambridge, MA 02138. **PR** $2.00. **JE** 320, 311. **KW** Budget Deficits. Tax Rules. Real Interest Rates Monetary Policy.

AB This paper examines three sources of the fluctuations in real interest rates during the past three decades: changes in budget deficits, changes in tax rules, and changes in monetary policy. The evidence indicates that budget deficits and monetary policy have had a strong influence on the level of long-term interest rates but fails to identify any effect of changes in corporate tax rates and investment incentives. The analysis shows that it is projected future budget deficits rather than the current level of the actual or structural deficit that influence long-term interest rates. Each percentage point increase in the five-year projected ratio of budget deficits to GNP raises the long-term government bond rate by approximately 1.2 percentage points while the ratio of the current deficit to GNP (either actual or structural) has no significant effect. The specific parameter estimates imply that the increase in projected budget deficits was responsible for about two-thirds of the rise in the interest rates between 1977-78 and 1983-84.

Fernandez, Judith C.

PD July 1985. **TI** Distributional Impacts of the Property Tax Revolt. **AU** Fernandes, Judith C.; De Tray, Dennis N. **AA** Rand. **SR** Rand Paper: P-6944; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 28. **PR** No Charge. **JE** 324, 325. **KW** Property Tax Incidence. Local Taxes. State Taxes.

AB Tax limitation laws enacted in the late 1970s in California and New Jersey changed the mix of state and local taxes levied in the two states. This study estimates the distributional consequences of that change for residents of four cities in each state, using an allocation methodology incorporating an extension of the "new view" of property tax incidence. The methodology allows the authors to treat local property tax rates as deviations from a national average rate, and thus to distinguish changes in tax burdens that are subject to state and local control from changes due to national trends in property taxes. The results indicate that state and local taxes combined have moved in the direction of increased progressivity, a movement that has been masked to some extent by the effects of a declining national average property tax rate. The results were weaker for the New Jersey cities than for the California ones.

PD July 1985. **TI** Direct Investment In Petroleum Ventures In Developing Countries: A Review of Risks and Strategies. **AA** Rand. **SR** Rand Paper: P-6883; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 67. **PR** No Charge. **JE** 443, 723. **KW** Petroleum Exporting Countries. Foreign Investment. Petroleum.

AB This paper explores the impact of political risk on foreign direct investment in petroleum ventures in those developing countries that are not members of the Organisation of Petroleum Exporting Countries. It coordinates and analyses information from a variety of published sources concerning political risk and investment in petroleum projects, and focuses on the twin issues of whether direct investment in petroleum projects in developing countries has been significantly impeded by political risk considerations, and whether United States government policies can reduce either the risk or its impact. It concludes with suggestions for further research necessary before policy recommendations can be made.

TI Meeting Occupational And Total Manpower Requirements A Least Cost: A Nonlinear Programming Approach. **AU** Grissmer, David W.; Fernandes, Judith C.

Fernandez, Richard L.

PD January 1985. **TI** Setting Enlistment Standards and Matching Recruits to Jobs Using Job Performance Criteria. **AA** Rand. **SR** Rand Report: R-3067-MIL; Rand Corporation, 1700 Main Street,P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 87. **PR** No Charge. **JE** 114, 810. **KW** Recruitment. Job Matching.

AB Every year the military services are faced with the tremendous tasks of choosing 300,000 new recruits from among the larger number who are willing to serve, and of deciding in which specialty each of the 300,000 should be trained. This report describes a study largely concerned with determining whether there is any objective basis for enlistment standards and for matching recruits to jobs. It develops a cost/performance tradeoff model that appears to be a useful tool for setting job standards and for prescribing appropriate service-wide standards, but finds that three questions must be answered before the model can be used objectively. A key element of the model is the "qualified man-month," a single performance measure that combines attrition and job performance information.

PD April 1985. **TI** The Dynamic Retention Model. **AU** Fernandes, Richard L.; Gots, Glenn A.; Bell, Robert M. **AA** Rand. **SR** Rand Note: N-2141-MIL; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 67. **PR** No Charge. **JE** 821, 114. **KW** Dynamic Retention Model. Military Personnel. Retention.

AB This Note is a nontechnical description of the Dynamic Retention Model (DRM), which facilitates analyses of the costs and benefits of proposed changes in the major policies affecting military personnel, including the level and structure of military compensation, the major parameters of the personnel system, and the nondisability retirement system. The DRM predicts a retention rate for a group at any particular point that depends both on future prospects and on history (promotions, pay, bonuses, etc.) for the group members. Because it models individual decisionmaking, the model can simulate the effects of policy changes that have no analogues in past policies. The authors demonstrate the flexibility of the model by comparing it with the Annualised Cost of Leaving model.

Fiebig, Denzil G.

TI Sample Design Considerations for Telephone Time-of-Use Pricing Experiments with an Application to OTC-Australia. **AU** Aigner, Dennis J.; Fiebig, Densil G.

Fischel, Daniel R.

PD April 1986. **TI** Comparable Worth and Discrimination in Labor Markets. **AU** Fischel, Daniel R.; Lasear, Edward P. **AA** University of Chicago. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-15; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 45. **PR** No Charge. **JE** 917, 813, 826, 824. **KW** Comparable Worth. Discrimination.

AB Opposition to comparable worth has centered on the argument that the market provides the appropriate valuation of labor and that government intervention is undesirable. That argument is too strong. Virtually all economic intervention by the government is based on the premise that the market does not provide appropriate valuation. For example, antitrust cases allege that a monopoly has charged super-competitive prices which, if reduced, would increase social welfare. A better argument against comparable worth is that the need for such a remedy logically implies the existence of a barrier to entry into another occupation. It is the barrier that is the problem. Comparable worth does not eliminate the barrier, which is the fundamental source of the problem, nor does it bring about a more equitable distribution of income. Comparable worth creates other inefficiencies and punishes a party who was not guilty of any wrong. Those who are defendants in such cases often are not the source of discrimination, even if we believe that the discrimination is real and pronounced. Additionally, comparable worth remedies place the heaviest penalty on those who discriminate the least. Finally, proponents of comparable worth are quick to claim the "moral high ground." This claim is underserved. A more cynical observer could argue the reverse. Comparable worth can be interpreted as an attempt by one group to obtain the government's assistance in transferring income from others to itself.

Fisher, Anthony C.

PD August 1985. **TI** Valuing Pollution Control: The Hysteresis Phenomenon in Aquatic Ecosystems. **AU** Fisher, Anthony C.; Hanemann, W. Michael. **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: 361 REV.; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 42 pages. **PR** $8.40. **JE** 722. **KW** Pollution Control. Hysteresis Phenomenon. Aquatic Ecosystems. Valuation.

AB A damaged ecosystem ordinarily will not respond immediately to a cessation of pollution discharges and, when it does respond, will not retrace the trajectory of its decline (hysteresis). In some cases, the system will never return to its original state. Further, there is uncertainty about the timing and nature of recovery. This paper develops a model for the valuation and control of pollution in an aquatic ecosystem, taking account of the constraints and uncertainties surrounding recovery. A multiperiod framework allows the treatment of a rich variety of types of recovery behavior. General superiority of closed-loop control to commonly used forms of open loop is demonstrated.

PD June 1986. **TI** Information and the Dynamics of Environmental Protection: The Concept of the Critical Period. **AU** Fisher, Anthony C.; Hanemann, W. Michael. **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: 420; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 32 p. **PR** $6.40. **JE** 720. **KW** Environmental Protection. Pollution Control. Stochastic Control. Hysteresis. Benefit-Cost.

AB The purpose of this paper is to investigate some issues that arise when one attempts to conduct a benefit evaluation for some form of environmental protection. The discussion is set in the framework of pollution control, but results have a bearing on other kinds of environmental problems and, for that matter, on still more general problems of stochastic control. Obviously, the extent of the benefits depends on the nature of the ecosystem's response to control. We are concerned with two aspects of ecosystem behavior in particular. The first is the phenomenon known as "hysteresis" in the natural sciences, which is the notion that a damaged ecosystem may not respond immediately to a cessation in pollution discharges and, when it does respond, may not exactly retrace the trajectory of its decline. Indeed, because of some irrecoverable losses from the system, it may never return to its original state. The second is the stochasticity of natural phenomena which implies that the ecosystem response is inherently uncertain.

Flood, Eugene Jr

PD August 7, 1986. **TI** An Empirical Analysis of the Effect of Exchange Rate Changes on Goods Prices. **AA** Graduate School of Business, Stanford University. **SR** Stanford Graduate School of Business Research Paper: 894; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 28. **PR** No Charge. **JE** 431. **KW** Exchange Rates. Prices. Real Exchange Rates. Price Discrimination.

AB It is widely believed that changes in foreign currency exchange rates can affect the prices of goods in domestic markets as well as the prices of traded goods. A question of interest to economists, businesses and policymakers is: What determines which industries are most affected by exchange rate changes? This article examines the importance of two factors on the responsiveness of individual goods prices to exchange rate changes: the distribution of consumption and production of a particular good across countries.

Flood, Robert P.

PD June 1986. **TI** Money and the Open Economy Business Cycle: A Flexible Price Model. **AU** Flood, Robert P.; Hodrick, Robert J. **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper: 1967; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 023, 131, 431, 311. **KW** Open Economy Business Cycle. Flexible Prices. Monetary Non-Neutrality. Information Confusion.

AB This paper develops an open-economy model of the business cycle. The nominal prices in the model are flexible and monetary nonneutrality is developed using information confusion about the sources of disturbances to demand coupled with differential persistence of demand shocks. Firms use inventories to smooth their production, and consumers follow a stochastic permanent income expenditure function. The major implication of the model is that unperceived monetary disturbances improve the terms of trade and increase real output in contrast to sticky price models in which the terms of trade deteriorates. This implication of the model is examined empirically.

PD July 1986. **TI** An Evaluation of Recent Evidence on Stock Market Bubbles. **AU** Flood, Robert P.; Hodrick, Robert J.; Kaplan, Paul. **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper: 1971; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 132. **KW** Stock Market Bubbles. Asset Price Volatility. Model Misspecification. Market Fundamentals.

AB Several recent studies have attributed a large part of asset price volatility to self-fulfilling expectations. Such an explanation is unattractive to many since it allows allocations that need bear no particular relation to those implied by the economist's standard kit of market fundamentals. We examine the evidence presented in some of these studies and find (i) that all of the bubble evidence can equally well be interpreted as evidence of model misspecification and (ii) that a slight extension of standard econometric methods points very strongly toward model misspecification as the actual reason for the failure of simple models of market fundamentals to explain asset price volatility.

Foster, William E.

TI A Coherent Policy for United States Agriculture. **AU** Rausser, Gordon C.; Foster, William E.

Fourgeaud, Claude

PD 1986. **TI** Strong Concentration Ordering. **AU** Fourgeaud, Claude; Gourieroux, Christian; Pradel, Jacqueline. **AA** Fourgeaud and Gourieroux: CEPREMAP. Pradel: Universite Paris I. **SR** CEPREMAP Discussion Paper: 8612; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 37. **PR** 20 FF. **JE** 229, 611, 621. **KW** Concentration Measures. Ordering. Increasing Returns. Technical Efficiency.

AB Considering cost functions with increasing return, we prove a property which can be interpreted in terms of concentration. We define the strong concentration relations and characterise the associated ordering by means of functions which play a role analogous to the usual Lorenz curves. We introduce the concept of elementary concentration operations (E.C.O.) and we prove that one distribution is more concentrated than another one if and only if it can be deduced from the latter by a sequence of E.C.O.'s. Finally, we define scalar concentration measures and exhibit relations between concentration measures and technical efficiency.

Frankel, Jeffrey A.

PD June 1986. **TI** Interpreting Tests of Forward Discount Bias Using Survey Data on Exchange Rate Expectations. **AU** Frankel, Jeffrey A.; Froot, Kenneth A. **AA** Frankel: University of California, Berkeley. Froot: M.I.T. **SR** National Bureau of Economic Research Working Paper: 1963; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 431. **KW** Forward Discount Bias. Exchange Rate Expectations. Survey. Risk premium. Expected Depreciation.

AB Survey data on exchange rate expectations are used to divide the forward discount into expected depreciation and a risk premium. Our starting point is the common test of whether the forward discount is an unbiased predictor of future changes in the spot rate. We use the surveys to decompose the bias into a portion attributable to the risk premium and a portion attributable to systematic prediction errors. The survey data suggest that our findings of both unconditional and conditional bias are overwhelmingly due to systematic expectational errors. Regressions of future changes in the spot rate against the forward discount do not yield insights into the sign, size or variability of the risk premium as is usually thought. We test directly the hypothesis of perfect substitutability, and find support for it in that changes in the forward discount reflect, one for one, changes in expected depreciation. The "random-walk" view that expected depreciation is zero is thus rejected; expected depreciation is even significantly more variable than the risk premium. In fact, investors would do better if they always reduced fractionally the magnitude of expected depreciation. This is the same result that Bilson and many others have found with forward market data, but now it cannot be attributed to a risk premium.

Fratrick, Mark R.

TI Dual Distribution as a Vertical Control Device. **AU** Coate, Malcolm B.; Fratrick, Mark R.

Friedman, Milton

PD February 1986. **TI** Quantity Theory of Money (Survey Article for New Palgrave Dictionary of Political Economy). **AA** Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-7; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 73. **PR** No Charge. **JE** 311, 023. **KW** Quantity Theory of Money. Fiat Money Standard.

AB This survey article, prepared for the forthcoming New Palgrave Dictionary of Political Economy, presents a formal statement of the quantity theory, then considers the Keynesian challenge to the quantity theory, recent developments, and some empirical evidence. It concludes with a discussion of policy implications, giving special attention to the likely implications of the worldwide fiat money standard that has prevailed since 1971.

Froot, Kenneth A.

TI Interpreting Tests of Forward Discount Bias Using Survey Data on Exchange Rate Expectations. **AU** Frankel, Jeffrey A.; Froot, Kenneth A.

Fuchs, Victor R.

PD July 1986. **TI** Why Are Children Poor? **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 1984; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 841, 914. **KW** Poverty. Children. Income Inequality. Income.

AB Data from the 1960, 1970, and 1980 Censuses of Population and the Current Population Surveys of 1980 and 1985 are used to describe and analyse the economic position of children with special emphasis on cross-section differences and variation over time in the incidence of poverty. Between 1959 and 1979 the income available to children tended to follow the same pattern as adult income, but between 1979 and 1984 the trends for children were very unfavorable. Poverty rose, average income fell, and income inequality increased. Contrary to popular belief, the increase in female-headed households played only a small part in the growth of poverty among children since 1979. Income available to children fell because households with children are highly dependent on labor income--which fell for all age groups. The elderly (65+), who derive 75 percent of their income from nonlabor sources (e.g., social security, private pensions, interest), were the only age group to experience gains in real per capita income during 1979-84. The conclusions about trends in the money income available to children and adults are relatively unchanged when estimates of the value of nonmarket production and in-kind government social welfare programs are added to money income.

Fullerton, Don

PD April 1986. **TI** A Disaggregate Equilibrium Model of the Tax Distortions Among Assets, Sectors, and Industries. **AU** Fullerton, Don; Henderson, Yolanda Kodrzycki. **AA** Fullerton: Department of the Treasury. Henderson: Federal Reserve Bank of Boston. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-19; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 41. **PR** No Charge. **JE** 323, 024. **KW** Tax Induced Inefficiency. Interasset Distortions. Differential Tax Treatment. Intersectoral Distortions.

AB This paper incorporates multiple sources of inefficiency introduced by the United States tax system into a single general equilibrium model. Using disaggregate calculations of user cost, we measure interasset distortions from the differential taxation of many types of assets. Simultaneously, we model the intersectoral distortions from the differential treatment of the corporate sector, noncorporate sector, and owner-occupied housing. Industries in the model have different uses of assets and degrees of incorporation. Results indicate that distortions between sectors are much smaller than those of the Harberger model. Distortions among industries are also much smaller than those in models using average effective tax rates. Distortions among assets are larger, but the total of all these welfare costs is still below one percent of income.

PD April 1986. **TI** The Impact of Fundamental Tax Reform on the Allocation of Resources. **AU** Fullerton, Don; Henderson, Yolanda Kodrzycki. **AA** Fullerton: Department of the Treasury. Henderson: Federal Reserve Bank of Boston. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-18; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 55. **PR** No Charge. **JE** 323, 024. **KW** Tax Reform. Resource Allocations. Welfare Effects. Intertemporal Distortions.

AB Recent proposals for fundamental tax reform differ in their relative emphasis on interasset, intersectoral, interindustry, and intertemporal distortions. The model in this paper addresses these multiple issues in the design of taxes on capital incomes. It is capable of measuring the net effects of changes in statutory rates, credits, depreciation allowances, and other features such as the indexation of interest and capital gains. It can compare costs of capital for individual assets, sectors, and industries, and it weighs these together to evaluate the impact on total investment incentives. In a fully general equilibrium system, it can simulate alternative resource allocations and associated changes in welfare. For the overall evaluation of alternative tax reform proposals, the simultaneous consideration of these multiple effects is crucial. The model is used to compare current law, the Treasury tax reform plan of November 1984, and the President's proposal of May 1985. Under the "new view" that dividend taxes have a small effect on investment incentives, both reforms would reduce interasset distortions and the President's plan would reduce intersectoral distortions, but the Treasury plan would exacerbate intertemporal distortions. Still, for most parameters, both reforms generate net welfare gains even with slight declines in the capital stock. Under the "old view" that dividend taxes have a significant effect on investment incentives, both plans reduce corporate taxation through their partial deductions for dividends paid. They thus reduce intersectoral distortions as well as differences among assets. Under this view, the Treasury plan no longer increases intertemporal distortions. Even for the least favorable set of parameters in this case, these reforms raise both the capital stock and the real value of output above their baseline values. Finally, the paper shows alternative allocations of capital among assets, sectors, and industries.

Furth, Dave

PD May 1985. **TI** Consistent Conjectural Variations in Heterogeneous Oligopoly. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 10/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 25. **PR** No Charge. **JE** 213, 611, 022. **KW** Oligopoly. Conjectural Variations. Cournot Equilibria.

AB The main drawback of the Cournot like equilibria in oligopoly is the observation that even in equilibrium the behaviour of competitors is not according to the "beliefs" of firms. This is also true for equilibria with conjectural variations. Conjectures, believes and reactions all point in the direction of a dynamic approach. Nevertheless it is possible to give a static definition of a stationary equilibrium with consistent conjectural variations, for which the above drawback does not hold.

Garber, Peter M.

PD Oct 3 1986. **TI** The Tulipmania Legend. **AA** Brown University. **SR** University of Rochester Center for Economic Research Working Paper: 53; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 54. **PR** No Charge. **JE** 313, 044. **KW** Bubble. Mania. Sunspots. Tulipmania. Speculation.

AB Casual knowledge of the tulipmania episode predisposes economists to advance bubble or speculative mania theories of asset pricing. However, since only a few particular episodes underpin the belief that bubbles may exist, it is desirable to undertake a detailed study of these events, most of which have not been examined with modern tools, to assure that other reasonable explanations have not been overlooked. Probably, economists will never agree that a bubble has affected prices in a particular modern market, because of the overwhelming clutter of available data and alternative theories. Similarly, it is likely that careful study of purported historical bubbles will cast doubt on whether they represent speculative manias. I aim to investigate the nature of the market and of the environment during the tulipmania, compiling time series on prices for individual tulips and examining the market fundamentals potentially driving bulb prices. While lack of data precludes a solid conclusion, the results of the study indicate that the bulb speculation was not obvious madness, at least for most of the 1634-37 "mania". High but depreciating prices for rare bulbs is a typical pattern in the flower bulb industry. Only the last month of the speculation, during which common bulb prices increased rapidly and crashed, remains as a potential bubble. However, the nature of the market, the contractual commitments, and the surrounding events are unclear enough that one could seriously embrace one side of the dispute only through religious conviction. Careful study of other purported "bubbles" probably will lead to similar conclusions.

Garella, Paolo

TI Price Competition in a Non-Homogeneous Space. **AU** Martines, Giralt Xavier; Garella, Paolo; Svoronos, Alexander.

Gavin, Michael K.

PD June 1986. **TI** Labor Market Rigidities and Unemployment: The Case of Severance Costs. **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: 284; Division of International Finance Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 55. **PR** No Charge. **JE** 023, 131, 824. **KW** Unemployment. Labor Market. Severance Costs.

AB It is frequently alleged that the persistent, high rates of unemployment in many European countries are due, at least in part, to various labor market rigidities. One of these rigidities is the high cost of firing workers, compared with the cost in the United States, or in Europe in the early 1960s. This paper assesses the empirical importance of severance costs on labor demand. A partial equilibrium model of the firm's employment decision in the presence of significant severance costs is formulated and solved. The theoretical section of the paper identifies the following determinants of the impact of severance costs on labor demand: (1) the sise of the required severance payments, (2) the variability and persistence of shocks to labor demand, (3) the expected rate of growth of labor demand, (4) the rate at which workers voluntarily leave the firm to retire or take other jobs, (5) the wage elasticity of labor demand, and (6) the firm's discount rate. The analytical framework is then used to evaluate the impact of severance costs on the expected cost of hiring a worker, and hence on labor demand. These costs are evaluated for a plausible base case, and the sensitivity of the conclusions to alternative assumptions is investigated.

Gaziouglu, S.

TI Currency Substitution in a Two-Asset - Two Country Model. A Simulation Approach. **AU** Artis, M.; Gasiouglu, S.

Geroski, P. A.

PD September 1986. **TI** The Dynamics of Market Structure. **AU** Geroski, P. A.; Masson, R. T.; Shaanan, J. **AA** Geroski: University of Southampton. Masson: Cornell University. Shaanon: Oklahoma State University. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8617; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 10. **PR** No Charge. **JE** 611, 212. **KW** Market Concentration. Market Structure.

AB In this paper, changes in market concentration are modelled in terms of long run steady state levels, and the adjustment towards them. Both the speed of adjustment and the long run levels of concentration are allowed to vary across industries. Non-linear three stage least squares estimates for allowing for the endogeneity of profits and advertising for 184 United States industries, 1963-67, suggest that both the speed of adjustment and the levels of concentration in the long run are largely determined by minimum efficient scale.

Ghosh, Damayanti

PD October 1985. **TI** Maximum Likelihood Estimation of the Dynamic Shock-Error Model. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8522; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 44. **PR** No Charge. **JE** 211, 212. **KW** Dynamic Shock-Error Model.

AB In this paper, an efficient estimation technique in the time domain for the dynamic shock-error model is developed. This approach utilises a state-space representation of the model and the Kalman Filtering technique to obtain the maximum likelihood estimates. The estimates are shown to be consistent and asymptotically normal with the inverse of the information matrix as their precision measure.

Gierz, Gerhard

TI The Bandwidth of Planar Distributive Lattices. **AU** Faigle, Ulrich; Giers, Gerhard.

Gilboa, I.

PD April 1986. **TI** Maxmin Expected Utility with a Non-Unique Prior. **AU** Gilboa, I.; Schmeidler, D. **AA** Department of Economics, Tel-Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 16-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 19. **PR** No Charge. **JE** 026, 022. **KW** Expected Utility. Maxmin Criteria. Certainty-

Independence. Uncertainty Aversion.
AB Acts are functions from states of nature into finite-support distributions over a set of "deterministic outcomes". We characterise preference relations over acts which have a numerical representation by the functional J(f) = min (integral of u composed with fdP, given P is in C) where f is an act, u is a von-Neumann-Morgenstern utility over outcomes, and C is a closed and convex set of finitely additive probibility measures on the states of nature. In addition to the usual assumptions on the preference relation as transitivity, completeness, continuity and monotonicity, we assume uncertainty aversion and certainty-independence. The last condition is a new one and is a weakening of the classical independence axiom: It requires that an act f is preferred to an act g if and only if the mixture of f and any constant act h is preferred to the same mixture of g and h. If non-degeneracy of the preference relation is also assumed, the convex set of priors C is uniquely determined. Finally, a concept of independence in case of a non-unique prior is introduced.

Ginsberg, Paul B.

TI The Medicare Case Mix Index Increase - Medical Practice Changes, Aging, and Diagnosis Related Groups Creep. **AU** Carter, Grace M.; Ginsberg, Paul B.

PD January 1986. **TI** Research Plan For The Preferred Provider Organisation Study. **AU** Ginsberg, Paul B.; Hosek, Susan D.; Duan, Naihua; Luft, Harold S.; Marquis, Susan; Turner, Joan B. **AA** Rand. **SR** Rand Note: N-2298-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 129. **PR** No Charge. **JE** 913, 921. **KW** Preferred Provider Organisations. Health Plans.
AB This Note outlines the research plan for Rand's Preferred Provider Organization (PPO) Study, which will analyze the experience of six large employers that have contracted with one or more PPOs to provide additional options for employees participating in the employers' health benefits plans. The research plan is designed to answer three broad questions: (1) What are the characteristics of employees who elect to enroll in the PPO plan, or use providers participating in the PPO? (2) What is the effect of PPOs on health services utilization and costs? (3) Do providers participating in PPOs practice differently from those declining to participate, or those not included in the PPO? The study will use econometric analysis, simulation, actuarial analysis, and case studies, and it will use four kinds of data: personnel records, surveys of employees, health insurance claims data, and a survey of physicians.

Goecke, Oskar

PD July 1986. **TI** A Greedy Algorithm for Hereditary Set Systems and a Generalisation of Rado-Edmonds Characterization of Matroids. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86423; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 13. **PR** No Charge. **JE** 213. **KW** Hereditary Set Systems. Strong Map Relations Between Matroids. Greedy Algorithm.
AB We call a set system of feasible sets hereditary if every (k+1)-element feasible set contains a k-element feasible subset (k>=0). We characterise hereditary set systems for which a modified greedy algorithm is optimal. This will involve an algorithmic characterisation of strong map relations between matroids. The set systems that come up are special greedoids which were introduced by B. Korte and L. Lovass '1981, 1984a, 1984b.

Goldberg, George A.

TI Reconciling Air Force Physicians' Peacetime and Wartime Capabilities Demonstration of a Workforce Design Methodology. **AU** Hosek, Susan D.; Buchanan, Joan L.; Goldberg, George A.

TI A Controlled Trial of the Effect of a Prepaid Group Practice on the Utilisation of Medical Services. **AU** Manning, Willard G.; Leibowitz, Arleen; Goldberg, George A.; Rogers, William H.; Newhouse, Joseph P.

TI A Controlled Trial of the Effect of a Prepaid Group Practice on the Utilisation of Medical Services. **AU** Manning, Willard G.; Leibowitz, Arleen; Goldberg, George A.; Rogers, William H.; Newhouse, Joseph P.

TI How Free Care Reduced Hypertension of Participants in the Rand Health Insurance Experiment. **AU** Keeler, Emmett B.; Brook, Robert H.; Goldberg, George A.; Kamberg, Caren J.; Newhouse, Joseph P.

Goldstein, Morris

PD March 1986. **TI** The Global Effects of Fund-Supported Adjustment Programs. **AA** International Monetary Fund. **SR** International Monetary Fund Occasional Paper: 42; International Monetary Fund, Washington, D.C. 20431. **PG** 49. **PR** $7.50 ($4.50 to university libraries, faculty, students). **JE** 430, 110, 123, 440. **KW** Balance of Payments Adjustment. Macroeconomic Policies. International Monetary Fund Programs. Macroeconomic Effects.
AB In 1971-73, only eight countries a year had Fund programs; a decade later, the average had risen to 23. Interest in the international impact of these programs has increased as a result, and this study contributes to the analysis and the debate in four main ways. First, it examines the strengths and weaknesses of alternative ways of defining and measuring the effects of programs, be they domestic effects or global effects. Second, it identifies the channels by which policies in program countries might be expected to affect both nonprogram and other program countries. Third, the paper reviews the empirical evidence on the likely size of such "aggregation" or "interdependence" effects of Fund programs. Finally, it discusses the ways in which the Fund currently takes these aggregation and interdependence effects into account, both in the design of stabilisation programs and, more broadly, in the advice it gives to member countries.

Gonul, Fusun

PD April 1986. **TI** A Methodology for Determining Whether Unemployment and Out-of-the-Labor Force are Distinct States. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 282; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 46. **PR** No Charge. **JE** 824, 225. **KW** Hazard Functions. Unemployment Measures.

AB This paper focuses on the question of whether or not people who are out of the labor force (OLF) should be included in unemployment measures. If people who are OLF can obtain jobs just as often as the people who are unemployed then there is no real distinction between the two states of nonemployment. This paper tests the equivalence of unemployment and out of the labor force states hypothesis with a new technique that allows processing more data on unemployment and OLF dynamics than has been used before. It is found that in both samples unemployment and out of the labor force are not distinct labor-force states for males. For females, the two states are found to be distinct although there is a tendency to accept the equivalence hypothesis when all the information in the data is exploited as opposed to sharply rejecting it based on reduced sample estimates.

PD September 1986. **TI** Hazard Functions With Dynamic Regressors. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 283; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 36. **PR** No Charge. **JE** 210. **KW** Gompertz-Like Hazard Functions. Defective Distributions. Mover-Stayer Type Heterogeneity.

AB In dynamic models it is a common practice among researchers to begin by formulating the hazard function. Often the hazard function is written as h=exp(Xb) because it has to be positive. The purpose of this paper is to point out possible deficiencies of such a formulation when X contains dynamic regressors. Then there arises another condition to be checked to see whether this is a proper hazard function or not, and that is the divergence of the hazard integral with respect to time since the hazard becomes a function of time with the inclusion of dynamic regressors. Based on economic theory we argue that in some cases an improper p.d.f. can be useful in explaining stayers versus movers in the population and prove that when the p.d.f. does not integrate to unity the remaining probability mass, i.e., the defect, exactly equals the proportion of stayers. We also examine cases when a defective p.d.f. is not so useful and suggest a correction. We conduct several experiments to discriminate between defective and nondefective likelihood functions using simulated data.

Goovaerts, M. J.

TI Necessary and Sufficient Conditions for Stochastic Dominance. **AU** Kaas, R.; Goovaerts, M. J.

TI Ordering of Risks and Weighted Compound Distributions. **AU** Kaas, R.; Goovaerts, M. J.; Vanderbroeck, M.

TI Bounds on Distribution Functions Under Integral Constraints. **AU** Kaas, R.; Goovaerts, M. J.

TI Bounds on Stop-Loss Premiums for Compound Distributions. **AU** Kaas, R.; Goovaerts, M. J.

Gordon, Robert J.

TI The Estimation of Prewar Gross National Product Volatility, 1869-1938. **AU** Balke, Nathan S.; Gordon, Robert J.

Gordon, Roger H.

PD August 1986. **TI** Measuring the Efficiency Cost of Taxing Risky Capital Income. **AU** Gordon, Roger H.; Wilson, John D. **AA** Gordon: University of Michigan. Wilson: Indiana University. **SR** National Bureau of Economic Research Working Paper: 1992; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323, 522, 026. **KW** Taxation of Risky Capital Income. Efficiency Cost. Infinite Horizon Stochastic Model.

AB Let Q = delta X sub S. In this paper, we derive a measure of the efficiency cost of taxing risky capital income in an infinite horizon stochastic model. The resulting measure differs from all those that have been proposed in the existing literature. It can be represented by the expression (sum over s of T sub s sup n times c(Q)), where T sub s sup n measures the present value of the taxes that would be paid on a unit of investment in a riskless project with the same expected depreciation rate and tax treatment as capital invested in period s, X sub s, while c(Q) represents the certainty equivalent to the representative individual of the lottery Q, where Q measures the ex post change in investment in period s due to the tax change. The paper then compares this measure with others that have appeared in the literature. We were unable to find support for the argument in Bulow-Summers (1984) that the efficiency cost of taxing risky capital income is much larger than that implied by the measure -(sum over s of (T sub s sup n) E(Q)). In fact, we show in special cases that our measure implies a smaller efficiency cost than does the measure -(sum over s of (T sub s sup n) E(Q)).

PD August 1986. **TI** Taxation of Asset Income in the Presence of a World Securities Market. **AU** Gordon, Roger H.; Varian, Hal R. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 1994; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323, 440, 420, 313. **KW** Taxation of Asset Income. World Securities Market. CAPM. Capital Flows.

AB This paper shows, using a standard CAPM model of security prices in a world market, that even small countries can affect the price of domestically issued risky securities, while large countries can affect the prices of all securities. As a result, countries have the incentive to set tax rates such that in equilibrium, investors specialise in domestic securities, and net capital flows between countries are restricted. Each country does this to increase the utility of domestic residents, taking as given the tax policies of other governments, but the net outcome is a reduction in world efficiency and likely a reduction in the utility of all individuals.

Gotz, Glenn A.

PD December 1984. **TI** A Dynamic Retention Model for Air Force Officers Theory and Estimates. **AU** Gotz, Glenn A.; McCall, John J. **AA** Rand. **SR** Rand Report: R-3028-AF; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 94. **PR** No Charge. **JE** 114, 811. **KW** Air Force. Dynamic Retention Model. Military Officers.

AB This report describes the theory and methodology for estimating the parameters of a dynamic retention model for Air Force officers. The model was designed to estimate voluntary retention rates under a broad range of compensation, retirement, and personnel policies. It describes the decisionmaking process of individuals making stay/leave decisions over time in an uncertain environment, which allows it to predict policy changes that have no historical analogues. The report presents the theory and estimated parameters of the model, compares actual retention rates and those predicted by the model and two competing models, and examines five illustrative changes in compensation policies.

TI The Dynamic Retention Model. **AU** Fernandez, Richard L.; Gots, Glenn A.; Bell, Robert M.

PD January 1986. **TI** Modeling the Contribution of Maintenance Manpower to Readiness and Sustainability. **AU** Gots, Glenn A.; Stanton, Richard E. **AA** Rand. **SR** Rand Report: R-3200-FMP; Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 56. **PR** No Charge. **JE** 114. **KW** Manpower Mixes. Weapons Availability.
AB This report describes and simulates a simple queuing model relating the mix of maintenance personnel in a repair station to weapon system availability in dynamic, wartime scenarios. The mixes of manpower considered in the model are described by the number of personnel in each occupation, their skill levels, and their cross-training. The model demonstrates the feasibility and importance of modeling a rich mix of manpower while explicitly considering the uncertainties about the true wartime demands for skills. Its most important output is the expected number of weapons systems unavailable due to missing reparable parts by day of the war. Three simulations demonstrate the importance of focusing on measures directly related to generating wartime sorties. They also demonstrate that uncertainty about the true wartime demands for resources makes it important to evaluate the contributions of each resource mix in a range of possible scenarios.

PD March 1986. **TI** Notes On The Gramm-Rudman-Hollings Deficit Reduction Plan. **AA** Rand. **SR** Rand Note: N-2426-FMP/RA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 11. **PR** No Charge. **JE** 114, 322. **KW** Department Of Defense. Gramm-Rudman-Hollings Act. Balanced Budget. Deficit Reduction.
AB The Department of Defense (DOD) may be significantly affected by the Gramm-Rudman-Hollings deficit reduction plan (GRH), formally called the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177. Although the broad outlines of GRH are widely known, the details are not well understood, and there is still disagreement as to how it is to be implemented and whether it is constitutional in whole or in part. This Note describes and comments on aspects of GRH which have not received much attention in the press, but which may have important effects on the DOD budget and on spending incentives within the Department of Defense.

Gourieroux, Christian

TI Strong Concentration Ordering. **AU** Fourgeaud, Claude; Gourieroux, Christian; Pradel, Jacqueline.

PD May 1986. **TI** Une Approche Geometrique des Processus ARMA (A Geometrical Approach to ARMA Processes). **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8611; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 32. **PR** 20 FF. **JE** 211, 212. **KW** ARMA Process. Correlation. Identification.
AB A number of interesting properties of stationary processes, in particular WOLD decomposition, can be derived using a geometrical approach. In this paper we introduce the notions of recent past and old past by means of well chosen vector spaces. A geometrical study of these spaces and of their correlation allows the derivation of several classical characterizations of the orders p and q of an ARMA process.

TI Identification and Consistent Estimation of Multivariate Linear Models with Rational Expectations of Current Variables. **AU** Broze, L.; Gourieroux, Christian; Szafarz, A.

Griliches, Zvi

TI Errors of Measurement of Output Deflators. **AU** Lichtenberg, Frank R.; Griliches, Zvi.

TI Errors of Measurement in Output Deflators. **AU** Lichtenberg, Frank R.; Griliches, Zvi.

Grilli, Vittorio

PD September 9, 1986. **TI** Indivisible Labor, Experience and Intertemporal Allocations. **AU** Grilli, Vittorio; Rogerson, Richard. **AA** Grilli: Yale University. Rogerson: University of Rochester. **SR** University of Rochester Center for Economic Research Working Paper: 56; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 67. **PR** No Charge. **JE** 821. **KW** Indivisible Labor. Experience. Intertemporal Allocations.
AB In this paper we show how the introduction of technological restrictions in a general equilibrium model of the labor market can produce dynamic patterns of employment and unemployment which replicate essential features of the empirical evidence. We demonstrate that in equilibrium, the probability of being employed in the future depends on past employment record. Moreover, it will be shown that, when dynamic considerations are taken into account, there is a sense in which, in equilibrium, unemployed individuals are worse off than employed individuals.

Grissmer, David W.

PD July 1985. **TI** Meeting Occupational And Total Manpower Requirements A Least Cost: A Nonlinear Programming Approach. **AU** Grissmer, David W.; Fernandez, Judith C. **AA** Rand. **SR** Rand Paper: P-7123; The Rand Corporation, 1700 Main Street, P. O. Box 2138, Santa Monica, CA 90406-2138. **PG** 40. **PR** No Charge. **JE** 812, 114, 213. **KW** Army Manpower Requirements. Military Occupational Specialties.
AB The Army trains and utilizes enlisted personnel in a wide variety of military occupational specialties (MOS), ranging from relatively unskilled to highly skilled, from

large specialties to small. Besides developing policies to meet specialty-specific needs, the Army must also develop manpower policies to meet aggregate manpower objectives, including meeting strength goals, observing budget and grade level limits, and maintaining promotion flows and objective force experience profiles. This paper develops a model designed to evaluate alternate approaches to meeting MOS-specific and aggregate manpower requirements. The analytic model, a cost-minimising nonlinear programming model, allows the manager to discover the least-cost way of providing the desired quality and quantity profiles of enlisted first-term, second-term, and career personnel in the total force and in each MOS, when MOSs vary as to marginal recruiting costs, training costs, retention histories, and requirements for senior personnel.

Grossman, Gene M.

PD April 1986. **TI** Counterfeit-Product Trade. **AU** Grossman, Gene M.; Shapiro, Carl. **AA** Grossman: Woodrow Wilson School. Shapiro: Princeton University. **SR** Centre for Economic Policy Research Discussion Paper: 103; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 34. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 026, 411, 422. **KW** Counterfeiting. Trademarks. Reputation.

AB We analyse a two-country model of trade in both legitimate and counterfeit products. Domestic firms own trademarks and establish reputations for delivering high-quality products in a steady-state equilibrium. Foreign suppliers export legitimate low-quality merchandise and counterfeits of domestic brand-name goods. Heterogeneous home consumers either purchase low-quality imports or buy brand-name products, rationally expecting some degree of counterfeiting of the latter. We characterise a counterfeiting equilibrium and explore its properties. We describe the positive and normative effects of counterfeiting in comparison with a no-counterfeiting benchmark. Finally, we provide a welfare analysis of border inspection policy and of policy regarding the disposition of counterfeit goods that are confiscated at the border.

Grossman, Herschel I.

TI On the Inception of Rational Bubbles in Stock Prices. **AU** Diba, Behzad; Grossman, Herschel I.

Grossman, Michael

TI Endogenous Drinking Age Laws and Highway Mortality Rates of Young Drivers. **AU** Saffer, Henry; Grossman, Michael.

Haaga, John

PD February 1985. **TI** A Framework for Analyzing Infant Nutrition Policy in Malaysia. **AA** Rand. **SR** Rand Note: N-2198-AID; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 37. **PR** No Charge. **JE** 913, 121. **KW** Infant Feeding. Malaysia. Infant Nutrition Policy.

AB This Note considers policies to both protect and promote breastfeeding, and to encourage sound supplementary feeding of breastfed infants in Malaysia. The programs and policy changes that are assessed include the Breastfeeding Campaign in Malaysia, various regulations and benefits for working mothers, proposed changes in the practices of health care institutions, regulation of breastmilk substitutes, nutritional surveillance, and price policies. Programs vary widely in costs, potential benefits, and feasibility and, because of the diversity of feeding patterns among Malaysia's population, no single program is likely to make sense for the whole country. The study finds that the most promising approaches are through the health care and family planning systems, and that efforts should not concentrate solely on the initial choice between breastfeeding and bottle-feeding. Instead, encouraging safer supplementary feeding needs to be the primary task of infant nutrition policy.

PD February 1985. **TI** The Choice of Milk Substitute or Supplementary Food For Malaysian Infants: A Conditional Logistic Analysis. **AA** Rand. **SR** Rand Note: N-2148-AID; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 48. **PR** No Charge. **JE** 913, 121. **KW** Malaysia. Infant Feeding.

AB This Note analyses trends and determinants of infant feeding choices in peninsular Malaysia during the period 1950-1977, using retrospective data from the Malaysian Family Life Survey (MFLS). It includes descriptive statistics summarising the overall trends and emphasizing the differences among Malaysia's ethnic groups in feeding choices. Then it specifies and estimates conditional logistic regression models from the MFLS data to examine, in a multivariate framework, the factors affecting the choice of milk for two subsamples: infants weaned entirely by the age of three months, and infants on a mixed feeding regimen. The main findings include the following: (1) of the factors investigated, ethnicity continues to affect feeding choices for both groups, even when other family characteristics, such as levels of education, urban residence, and income, are controlled; (2) rural women are more likely to use sweetened condensed milk as a breastmilk substitute in early infancy; (3) family income matters little in the choice of milk substitute or supplementary food for either the early weaners or mixed feeders; (4) infants on mixed feeding are given a wider variety of first food or liquid; (5) the probability of use of powdered infant milk is greater for infants born in hospitals.

Haaga, John G.

PD December 1985. **TI** Health Consequences of Infant Feeding in Malaysia: A Review. **AA** Rand. **SR** Rand Note: N-2146-AID; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 42. **PR** No Charge. **JE** 913, 121. **KW** Malaysia. Infant Feeding Patterns. Public Health Policy.

AB This Note reviews literature on the effects of infant feeding patterns on child health and assesses the implications of recent research for public health policy in Malaysia and other developing countries. It discusses the nutritional consequences of infant feeding choices, recent studies of the immunological properties of breast milk, and the effects of breastfeeding on birthspacing. The Note argues that in all developing countries, policies to improve infant and child health will have to be adapted to local needs and opportunities. Preventable child deaths are the results of multiple causes; the efficacy of an attack on one cause alone, such as unsound feeding practices, cannot be assumed, but must be evaluated from operational programs. Other Notes in this series on infant feeding and nutrition policy include N-2147-AID, N-2148-AID, N-2157-AID, and N-2198-AID.

Haas, Richard D.

TI A Review of the Fiscal Impulse Measure. **AU** Heller, Peter S.; Haas, Richard D.; Mansur, Ahsan S.

Habicht, Jean Pierre

PD January 1985. **TI** The Contraceptive Role of Breastfeeding. **AU** Habicht, Jean Pierre; DaVanzo, Julie; Butz, William P.; Meyers, Linda. **AA** Rand. **SR** Rand Note: N-2267-AID; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 47. **PR** No Charge. **JE** 913, 121, 841. **KW** Breastfeeding. Ovulation. Malaysia. Contraceptive.

AB This Note reviews neurohormonal mechanisms by which breastfeeding postpones the return of ovulation and menstruation after birth, and various statistical procedures used to analyse this effect in human populations. This review reveals that the biology and the statistical procedures are incompatible. The authors propose a statistical approach, compatible with present knowledge of physiology, that differentiates between ovulatory-inhibiting mechanisms at birth and the weakening of these inhibitions thereafter, so that it is possible to investigate the effects on these mechanisms due to breastfeeding and to other determinants such as mother's age. An empirical test with typical recall data from Malaysia indicates that full breastfeeding postpones ovulation longer than does supplemented breastfeeding, and that both have stronger contraceptive effects than has been previously thought.

Haitovsky, Y.

PD April 1985. **TI** On Multivariate Ridge Regression. **AA** Hebrew University of Jerusalem. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 7/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 28. **PR** No Charge. **JE** 211. **KW** Multivariate Regression. Ridge Regression. Bayes Estimates. Empirical Bayes. Least Squares. Maximum Likelihood. Linear Hierarchial Model. Stein's Estimator. Mean of a Multivariate Normal Distribution. Exchangeability. Election Night Forecasting.

AB A multivariate linear regression model with q responses as a linear function of p independent variables Y = XB + E is considered with a p x q parameter matrix B. The least squares (or Maximum Likelihood for multivariate normal E) estimator of B is deficient in that it takes no account of the "across regression" correlations, on the one hand, and ignores the famous Stein effect, on the other hand. A remedy was offered by Brown and Zidek (1980) in the form of a multivariate ridge estimator. A richer class of estimators is obtained here by casting the model in a linear hierarchical framework, obtaining the Brown and Zidek multivariate ridge estimators, Efron and Morris' estimators of several normal mean vectors and Fearn's Bayesian estimators of growth curves as special cases. The unknown covariance cases result in an identifiability problem which is treated in a Bayesian fashion using conjugate priors. The method is then applied to forecasting the final election results from partial returns obtained at election night.

Hajivassiliou, Vassilis Argyrou

PD August 1986. **TI** Temporal Dependence in Limited Dependent Variable Models: Theoretical and Monte-Carlo Results. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 803; Cowles Foundation for Research in Economics, 30 Hillhouse Avenue, Box 2125 Yale Station, New Haven, CT 06520. **PG** 38. **PR** No Charge. **JE** 211. **KW** Consistency. Serial Dependence. Mixing Processes. Limited Dependent Variables Models. Probit. Logit. Tobit. Normality.

AB This paper analyzes the consistency properties of classical estimators for limited dependent variables models, under conditions of serial correlation in the unobservables. A unified method of proof is used to show that for certain cases (e.g., Probit, Tobit and Normal Switching Regimes models, which are normality-based) estimators that neglect particular types of serial dependence (specifically, corresponding to the class of "mixing" processes) are still consistent. The same line of proof fails for the analogues to the above models that impose logistic distributional assumptions, thus indicating that normality plays a special role in these problems. Sets of Monte-Carlo experiments are then carried out to investigate these theoretical results.

PD August 1986. **TI** Temporal Dependence in Limited Dependent Variable Models: Theoretical and Monte-Carlo Results. **AA** Cowles Foundation for Research in Economics, Yale University. **SR** Yale Cowles Foundation Discussion Paper: 803; Cowles Foundation for Research in Economics, Yale University, Box 2125 Yale Station, New Haven, CT 06520. **PG** 37. **PR** No Charge. **JE** 211. **KW** Consistency. Limited Dependent Variables. Serial Correlation.

AB This paper analyzes the consistency properties of classical estimators for limited dependent variables models, under conditions of serial correlation in the unobservables. A unified method of proof is used to show that for certain cases (e.g., Probit, Tobit and Normal Switching Regimes models, which are normality-based) estimators that neglect particular types of serial dependence (specifically, corresponding to the class of "mixing" processes) are still consistent. The same line of proof fails for the analogues to the above models that impose logistic distributional assumptions, thus indicating that normality plays a special role in these problems. Sets of Monte-Carlo experiments are then carried out to investigate these theoretical results.

Hall, Bronwyn H.

PD June 1986. **TI** The Relationship Between Firm Size and Firm Growth in the United States Manufacturing Sector. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 1965; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 631, 211, 022. **KW** Firm Size. Firm Growth. United States Manufacturing Sector. Gibrat's

Law.
AB This paper investigates the dynamics of firm growth in the United States manufacturing sector in the recent past. I use panel data on the publicly traded firms in the United States manufacturing sector: from a universe of approximately 1800 firms in 1976, I am able to follow most of them for at least three years, and over half of them from 1972 until 1983. I consider several problems, both econometric and substantive, which exist in analyzing this kind of data: the choice of size measure, the role of measurement error, and the effect of selection (attrition) on estimates obtained from this sample. Using time series methods, suitably modified for panel data (where the number of time periods per observational unit is small), I analyze the behavior of employment over time and find that most of the change in employment in any given year is permanent in the sense that there is no tendency to return to the previous level. Year-to-year growth rates are largely uncorrelated and there is almost no role for measurement error. I find that Gibrat's Law is weakly rejected for the smaller firms in my sample and accepted for the larger firms. Other measures of size produce essentially the same results. Correction for attrition from the sample changes the results somewhat: I use a simple model in which firms leave the sample because they are small and/or undervalued (since many exits are acquisitions) and find that Tobin's Q, the ratio of market valuation to the value of the underlying assets of the firm, is a much better predictor of exit probability than size alone (firms with low Q are more likely to exit the sample). When I use this estimate of the probability of exit to control for selection bias, Gibrat's Law is weakly rejected for firms of all sizes and there are significant positive effects on firm growth from both investment in physical capital and R&D expenditures, with R&D having a somewhat higher net effect.

Hall, Peter

TI How Far Are Automatically Chosen Regression Smoothing Parameters from Their Optimum? **AU** Hardle, Wolfgang; Hall, Peter; Marron, J. S.

Hall, Robert E.

PD July 1986. **TI** Chronic Excess Capacity in United States Industry. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 1973; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 630, 641, 611. **KW** Excess Capacity. United States Industry. Market Power.
AB Previous research has suggested that firms in a number of industries have considerable market power, in the sense that their prices exceed their marginal costs. However, the observed profits of those industries are not nearly as high as would occur under full exploitation of the market power with a constant returns technology. Rather, because of fixed costs associated with a minimum scale of operation or for other reasons, industry equilibrium occurs at a point where no abnormal returns are earned, even though market power exists. This inference is supported by an empirical study that shows that most industries hold capital far beyond the point that would minimize cost given their actual output. In this sense, the industries have chronic excess capacity.

Haltiwanger, John C.

TI The Ins and Outs of Unemployment: The Ins Win. **AU** Darby, Michael; Haltiwanger, John C.; Plant, Mark W.

Ham, John C.

PD August 1986. **TI** Unemployment Insurance and Male Unemployment Duration in Canada. **AU** Ham, John C.; Rea, Samuel A. Jr. **AA** University of Toronto. **SR** Princeton Industrial Relations Section Working Paper: 212; Industrial Relations Section, Princeton University Princeton, NJ 08544. **PG** 34. **PR** No Charge. **JE** 824. **KW** Unemployment Duration. Unemployment Insurance.
AB A model of unemployment duration is estimated with weekly micro data on a sample of Canadian men during the 1975 through 1980 period. Entitlement provisions in the unemployment insurance program and demand conditions are found to have a significant impact on the probability of leaving unemployment. The probability of a worker leaving unemployment declines with duration of unemployment, holding unemployment insurance entitlement constant. When entitlement is allowed to vary, the probability of leaving first falls and then generally rises with unemployment duration as the declining entitlement induces a greater willingness to accept offers or search more intensively. These results are robust to alternative specifications of duration dependence and to allowing for person-specific unobserved heterogeneity.

Hammitt, James K.

PD 1985. **TI** Automobile Accident Compensation Volume IV: State Rules. **AU** Hammitt, James K.; Houchens, Robert L.; Polin, Sandra S.; Ralph, John E. **AA** Rand. **SR** Rand Report: R-3053-ICJ; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 72. **PR** No Charge. **JE** 921, 635. **KW** Automobile Accident Compensation. Liability Rules. Insurance Regulations.
AB The rules governing the sources of financial compensation that are available to accident victims vary widely between states. This report catalogues and explains the current liability rules and insurance regulations in all fifty states. As an aid to understanding the patterns of rules within states, it classifies the states into ten groups, using a refinement of the traditional tort/no-fault/add-on system.

PD 1985. **TI** Automobile Accident Compensation Volume II: Payments by Auto Insurers. **AA** Rand. **SR** Rand Report: R-3051-ICJ; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 135. **PR** No Charge. **JE** 921, 635. **KW** Automobile Accident Compensation. No-Fault Policies. Liability Insurance.
AB Automobile accident victims may receive financial compensation from several sources, depending on the rules of their state. This report analyses closed insurance claims data to describe the effects of interstate differences in liability rules and insurance regulations on the compensation payments made under automobile no-fault

and liability insurance policies. No-fault payments are usually equal to the claimant's economic loss, and no-fault claimants generally receive at least partial payment more quickly than liability-insurance claimants. Liability-insurance payments also cover most claimants' economic losses, and frequently include payment for general damages (e.g. pain and suffering) which, while highly variable, often exceed economic losses. Alternative liability rules have only modest effects on the number of victims who obtain payment under a liability policy.

TI Projected Use, Emissions, And Banks of Potential Ozone-Depleting Substances. **AU** Quinn, Timothy H.; Wolf, Kathleen A.; Moos, William E.; Hammitt, James K.; Chesnutt, Thomas W.; Sarma, Syam.

TI Projected Use, Emissions, And Banks of Potential Ozone-Depleting Substances. **AU** Quinn, Timothy H.; Wolf, Kathleen A.; Moos, William E.; Hammitt, James K.; Chesnutt, Thomas W.; Sarma, Syam.

PD May 1986. **TI** Product Uses and Market Trends for Potential Ozone-Depleting Substances 1985-2000. **AU** Hammitt, James K.; Wolf, Kathleen A.; Camm, Frank; Moos, William E.; Quinn, Timothy H.; Bamezai, Anil. **AA** Rand. **SR** Rand Report: R-3386-EPA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 120. **PR** No Charge. **JE** 722, 613. **KW** Ozone-Depleting Substances. Health. Pollution.

AB Global human emissions of chlorofluorocarbons (CFCs) and several related chemicals may reduce the concentration of stratospheric ozone and, in so doing, may induce significant negative effects on human health and a variety of economically important activities. For the United States and the world as a whole, this report describes current patterns of use and projects future production levels for the seven most important potential ozone depleters: CFC-11, CFC-12, CFC-113, carbon tetrachloride, methyl chloroform, Halon 1211, and Halon 1301. The projections are based on detailed analysis of the major applications of these chemicals.

Hanemann, W. Michael

TI Valuing Pollution Control: The Hysteresis Phenomenon in Aquatic Ecosystems. **AU** Fisher, Anthony C.; Hanemann, W. Michael.

TI Information and the Dynamics of Environmental Protection: The Concept of the Critical Period. **AU** Fisher, Anthony C.; Hanemann, W. Michael.

Hansen, Lars Peter

TI A Time Series Analysis of Representative Agent Models of Consumption and Leisure Choice Under Uncertainty. **AU** Eichenbaum, Martin; Hansen, Lars Peter; Singleton, Kenneth J.

Hanson, Kenneth A.

TI Irregular Fluctuations in Competitive Markets with Production Lags. **AU** Day, Richard H.; Hanson, Kenneth A.

Hanushek, Eric A.

PD August 1986. **TI** Nonlabor Supply Responses to the Income Maintenance Experiments. **AA** University of Rochester. **SR** University of Rochester Center for Economic Research Working Paper: 55; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 26. **PR** No Charge. **JE** 910, 323. **KW** Negative Income Tax. Poverty. Welfare. Income Maintenance.

AB Most analytical and policy attention in the negative income tax experiments has rightfully focused on issues of labor supply. The experiments did, however, allow extensive investigations of other behavioral reactions. This paper reviews analyses of consumption and investment activities observed during the various income maintenance experiments. The possibility of increased human capital investment is the most important nonlabor supply aspect of a negative income tax. The experimental evidence suggests a switch from work to schooling by youth (that keeps leisure essentially unchanged). Because of the limited duration of the experiments, there is some ambiguity about whether such an effect would be observed in an on-going program, but it seems likely. There are few other investment and consumption findings, and those available do not seem important for consideration of welfare policy.

Hardle, Wolfgang

PD June 1986. **TI** How Far Are Automatically Chosen Regression Smoothing Parameters from Their Optimum? **AU** Hardle, Wolfgang; Hall, Peter; Marron, J. S. **AA** Hardle: University of Bonn. Marron: University of North Carolina, Chapel Hill. Hall: Australian National University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 74; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 41. **PR** No Charge. **JE** 211, 212. **KW** Nonparametric Curve Estimation. Automatically Selected Bandwidth. Optimal Bandwidth. Monte Carlo Studies.

AB The problem of smoothing parameter selection for nonparametric curve estimators is addressed in the specific context of kernel regression estimation. Call the "optimal bandwidth" the minimiser of the average squared error. A number of automatically selected bandwidths which approximate the optimum are considered. How far are the automatically selected bandwidths from the optimum? The answer to this question is studied both theoretically and through simulations. The theoretical results include a central limit theorem which both quantifies the rate of convergence and also gives the asymptotic distribution of the difference. The rate of convergence turns out to be excruciatingly slow. This is not too disappointing because this rate is of the same order as the rate of convergence of the difference between the minimisers of the average squared error and the mean average squared error. In some simulations by John Rice, the selectors considered here performed quite differently from each other. We anticipated that these differences would be reflected in different asymptotic distributions for the various selectors. It is rather surprising that all of the selectors have the same limiting normal distribution. To provide insight into the gap between our theoretical results and the above simulations, we did a further Monte Carlo study. Our simulations support the theoretical results, and suggest that the differences observed by Rice seemed to be principally due to the choice of a very small error standard deviation and the choice of error criterion.

PD August 1986. **TI** Bootstrapping in Nonparametric Regression: Local Adaptive Smoothing and Confidence Bands. **AU** Hardle, Wolfgang; Bowman, Adrian. **AA** Hardle: University of Bonn. Bowman: University of Manchester. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 71; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 24. **PR** No Charge. **JE** 211, 212. **KW** Bootstrapping. Nonparametric Regression. Adaptive Smoothing. Confidence Bands.

AB The operation of the bootstrap in the context of nonparametric regression is considered. Bootstrap samples are taken from estimated residuals to study the distribution of a suitably recentered kernel estimator. The application of this principle to the problem of local adaptive choice of bandwidth and to the construction of confidence bands is investigated and compared with a direct method based on estimation of asymptotic means and variances.

Hardouvelis, Gikas A.

PD August 1986. **TI** Monetary Policy and Short-Term Interest Rates: New Evidence on the Liquidity Effect. **AA** Barnard College - Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-28; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 19. **PR** $5.00 academics and non-profit institutions; $6.00 corporations (add $1.00 outside United States, Canada and Puerto Rico). **JE** 311, 430. **KW** Liquidity Effect. Money Supply. Interest Rates. Exchange Rates.

AB Recent empirical literature has claimed that the liquidity effect is vanishing in the 1970s and 1980s. But we find evidence of a strong liquidity effect after October 1979, when the Federal Reserve deemphasized interest rate targeting and, therefore, changes in the quarterly growth rate of M1 were more exogenous than they were before October 1979. We also find that real interest rates are strongly affected by changes in aggregate demand, which is consistent with the Keynesian view of the economy. We utilise spot exchange rates to claim that variations in nominal interest rates reflect variations in the real rate of interest.

Harrell, Thomas W.

PD August 21, 1986. **TI** Attributes of Successful MBAs: A Twenty-Year Longitudinal Study. **AU** Harrell, Thomas W.; Alpert, Bernard. **AA** Harrell: Graduate School of Business, Stanford University. Alpert: School of Business, San Francisco State University. **SR** Stanford Graduate School of Business Research Paper: 898; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 27. **PR** No Charge. **JE** 824. **KW** MBAs. Managerial training. Sociability.

AB Are attributes of successful MBAs useful for predicting success, and thereby improving business management? In a twenty-year study of Stanford MBAs, 15 and 20 year results have identified the extreme importance to success of sociability. The study also showed a continuing trend to move out of larger companies into self employment in very small companies, and the relatively lower earning after 20 years of engineers and older employees.

Harrison, Scott

TI Extending the Medicare Prospective Payment System to Posthospital Care-Planning a Demonstration. **AU** Neu, C. R.; Palmer, Adele; Henry, Donald Putnam; Olson, George T.; Harrison, Scott.

Hatton, T. J.

PD June 1986. **TI** Female Labour Force Participation: The Enigma of the Interwar Period. **AA** University of Essex. **SR** Centre for Economic Policy Research Discussion Paper: 113; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 39. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 813, 826, 041. **KW** Female Labor Force Participation. Interwar Period. Labor Supply. Discouraged Worker Effects.

AB This paper focusses on female labour force participation during the interwar period. The various forces which would be expected to determine long-term trends in participation are outlined, raising the question of why the upward trend in participation did not become firmly established before the Second World War. Tests of a labour supply function for females on data from the 1931 census indicate that demographic and household structure variables perform as might have been expected but these are dominated by measures of occupational structure. Both time series and cross-section estimates provide no support for the notion that female participation during the interwar period was restricted by high unemployment.

Hause, John C.

PD February 1986. **TI** Gulliver Among the Lilliputians: Some Results on Competition and the Efficiency of Cournot Equilibrium. **AA** State University of New York at Stony Brook. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-5; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 25. **PR** No Charge. **JE** 611, 022. **KW** Cournot Equilibrium. Efficiency. Competition.

AB This paper considers an industry with a large firm and a number of smaller competitors. The firms all have nondecreasing marginal costs, and no fixed costs. The paper establishes quite generally that increasing the number of smaller firms beyond a certain level leads to a decrease in allocational efficiency of Cournot equilibrium. This comes about because the increased number of smaller firms partially displace lower cost output from the large firm by higher cost output from the small firms. This reduction of efficiency in production eventually outweights the value of increased total industry output. The paper then examines the potential importance of this source of resource misallocation in several significant classes of models, and shows that they are quite small-less than 11 per cent of the social surplus generated by the large firm if it faced no competition and has an absolute cost advantage over the small firms. This maximum potential loss is reduced to about 4 per cent if the large firm preempts the market by selling at a price less than the minimum cost of production of the small firms. And it is plausible that this would happen if the large firm obtains higher profits by preemption than by accepting the Cournot equilibrium. Such preemption is associated with a substantial increase in allocational efficiency.

PD April 1986. **TI** Indemnity, Settlement, and Litigation or I'll be Suing You. **AA** State University of New York at Stony Brook. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-17; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 19. **PR** No Charge. **JE** 916. **KW** Indemnity. Civil Litigation. Settlements. Lawsuits.

AB In the American system of civil litigation, plaintiff and defendant generally pay their own legal costs, regardless of who prevails at trial. In the British system, the loser generally pays the prevailing party's legal costs as well as his own under the indemnity rule. This study is an attempt to determine the main consequences of going from the American rule to the indemnity rule, in terms of the number of suits that are initiated and in terms of the relative number of suits that are resolved by a settlement between the parties instead of by a trial. The economic model assumes that the probability of the defendant prevailing in a trial and the size of the trial judgement awarded to a successful plaintiff are functions of legal expenditures that each party would make if a trial takes place. Previous studies assumed that the probability of plaintiff prevailing and size of judgement were constants, unaffected by whether the American rule or indemnity rule is in operation. In contrast with the previous studies, the present analysis suggests that a change to the indemnity system would increase the number of settlements, would increase trial expenditures on those suits which go to trial, and lead to fewer suits being initiated than previous work suggested.

Hausman, Jerry A.

PD August 1986. **TI** Specifying and Testing Econometric Models for Rank-Ordered Data With An Application to the Demand for Mobile and Portable Telephones. **AU** Hausman, Jerry A.; Ruud, Paul A. **AA** Hausman: Massachusetts Institute of Technology. Ruud: University of California at Berkeley. **SR** University of California at Berkeley Institute of Business and Economic Research Paper in Economics: 8605; Institute of Business and Economic Research, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 41. **PR** $3.00. **JE** 212. **KW** Logit. Rank Orderings. Preferences.

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

Heijmans, Risto D. H.

PD April 1985. **TI** Consistent Maximum Likelihood Estimation with Dependent Observation The General (Non-Normal) Case and the Normal Case. **AU** Heijmans, Risto D. H.; Magnus, Jan R. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 24/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 55. **PR** No Charge. **JE** 211. **KW** Asymptotic. Consistency. Dependency. Maximum Likelihood Estimation.

AB There seems to be almost universal consensus among econometricians that the method of maximum likelihood estimation yields estimators which, under mild assumptions, are consistent. The purpose of this paper is to show that this unanimity is largely justified, but on grounds that are not quite so trivial as generally assumed.

PD October 1985. **TI** On the First-Order Efficiency and Asymptotic Normality of the Maximum Likelihood Estimator Obtained from Dependent Observations. **AU** Heijmans, Risto D. H.; Magnus, Jan R. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 25/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 37. **PR** No Charge. **JE** 211. **KW** Asymptotic Normality. First-Order Efficiency. Dependency. Maximum Likelihood Estimator.

AB In this paper we study the first-order efficiency and asymptotic normality of the maximum likelihood estimator obtained from dependent observations. Our conditions are weaker than usual, in that we do not require convergences in probability to be uniform or third-order derivatives to exist. The paper builds on Witting and Nolle's result concerning the asymptotic normality of the maximum likelihood estimator obtained from independent and identically distributed observations, and on a martingale theorem by McLeish.

Heller, Peter S.

PD May 1986. **TI** A Review of the Fiscal Impulse Measure. **AU** Heller, Peter S.; Haas, Richard D.; Mansur, Ahsan S. **AA** International Monetary Fund. **SR** International Monetary Fund Occasional Paper: 44; International Monetary Fund, Washington, D.C. 20431. **PG** 43. **PR** $7.50 ($4.50 to university libraries, faculty, students). **JE** 321, 113. **KW** Fiscal Analysis. Productivity Accounting. Fiscal Impulse Measure. International Monetary Fund.

AB The International Monetary Fund's fiscal impulse measure, a quantitative estimate of the direct effect of changes in the fiscal policy stance on aggregate demand, is evaluated. The methodology underlying the calculation of the fiscal impulse is reviewed and compared with alternative measures used elsewhere. Several possible modifications that could be employed in calculating the fiscal impulse are examined. The first involves examining the definition and calculation of potential output. Alternative accounting schemes are also assessed, as is the desirability of making special provisions for inflation and for unemployment insurance payments. Finally, a simple methodology for estimating the structural deficit is proposed.

PD September 1986. **TI** Aging and Social Expenditure in the Major Industrial Countries, 1980-2025. **AU** Heller, Peter S.; Hemming, Richard; Kohnert, Peter W. **AA** International Monetary Fund. **SR** International Monetary Fund Occasional Paper: 47; International Monetary Fund, Washington, D.C. 20431. **PG** 84. **PR** $7.50 ($4.50 to university libraries, faculty, students). **JE** 915, 841, 225, 322. **KW** Social Accounts. Social Security. Public Expenditure. Industrial Countries.

AB This comparative study of trends in government social expenditures pays particular attention to demographic trends in the industrial countries. It discusses such significant issues as the impact of the aging of the populations of industrial countries on outlays for social expenditures and the likely evolution of future social expenditures. Seven individual country studies are included, and detailed demographic and expenditure patterns are provided through the year 2025.

Helliwell, John F.

PD August 1986. **TI** Supply-Side Macroeconomics. **AA** University of British Columbia. **SR** National Bureau of Economic Research Working Paper: 1995; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 023, 122. **KW** Supply-Side Macroeconomics. Canada. Factor Utilisation. United States. Output Determination Model.

AB This paper tests New Classical and Keynesian explanations of output determination within an encompassing "factor utilisation" model wherein the output decision by producers is modelled as the choice of a utilisation rate for employed factors. In this encompassing model, the ratio of actual to normal output (with the latter defined by a nested CES vintage production function with capital, energy and employment as factor inputs) is explained by unexpected sales (a Keynesian element), abnormal profitability (one component of which is the Lucas "price surprise" effect), and abnormal inventories. Results using Canadian data show that the Keynesian and New Classical elements contribute explanatory power, as does the production-function-based measure of normal output, while each of these partial models is strongly rejected in favour of the encompassing model. The highly structured factor utilisation model is also seen to fit better than an unstructured VAR model. United States data confirm the results, and show that there are significant effects from abnormal demand, profitability and inventory levels even if the labour and capital components of normal output are defined using hours and utilised capital rather than employment and the capital stock. The results are also confirmed using alternative output (and hence input) concepts, using a translog function instead of a CES function to define normal output, and using data for several other major industrial countries.

Hellwig, Martin

PD September 1986. **TI** A Note on the Specification in Insurance Markets with Adverse Selection. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 56; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 15. **PR** No Charge. **JE** 026. **KW** Insurance Market. Nash Equilibrium. Information. Uncertainty.

AB The paper reconsiders the proposition, due to Jaynes, that the Rothschild-Stiglitz-Wilson insurance market with adverse selection has a Nash equilibrium once the sharing of information about customers is treated endogenously as part of the game among firms. The proposition is shown to be correct if and only if each firm's communication behaviour is conditioned on the set of contracts that are offered the other firms. This type of conditioning introduces a reactive element which is akin to the alternative approach of Wilson.

Helpman, E.

TI Inflationary Consequences of Anticipated Macro-Economic Policies Part II: Budget Cuts. **AU** Drazen, A.; Helpman, E.

TI Inflationary Consequences of Anticipated Macro-Economic Policies. **AU** Drazen, A.; Helpman, E.

TI Future Stabilisation Policies and Inflation. **AU** Drazen, A.; Helpman, E.

Hemming, Richard

TI Aging and Social Expenditure in the Major Industrial Countries, 1980-2025. **AU** Heller, Peter S.; Hemming, Richard; Kohnert, Peter W.

Henderson, Yolanda Kodrzycki

TI A Disaggregate Equilibrium Model of the Tax Distortions Among Assets, Sectors, and Industries. **AU** Fullerton, Don; Henderson, Yolanda Kodrzycki.

TI The Impact of Fundamental Tax Reform on the Allocation of Resources. **AU** Fullerton, Don; Henderson, Yolanda Kodrzycki.

Henry, Donald Putnam

TI Extending the Medicare Prospective Payment System to Posthospital Care-Planning a Demonstration. **AU** Neu, C. R.; Palmer, Adele; Henry, Donald Putnam; Olson, George T.; Harrison, Scott.

Hessen, Robert

PD October 1986. **TI** The Evolution of Corporations: A Survey Article for the New Palgrave Dictionary of Political Economy. **AA** Hoover Institution, Stanford University. **SR** Stanford Hoover Institution Working Paper in Economics: E-86-57; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 18. **PR** No Charge. **JE** 041, 051. **KW** Corporations. Joint-Stock Companies. General Incorporation Laws. Alternatives to

Incorporation. Financial Intermediaries.
AB This survey article, prepared for the forthcoming New Palgrave Dictionary of Political Economy, traces the historical evolution of corporations. It argues that business corporations are the direct descendants of the unincorporated business associations of the 18th century (which were corporations de facto). It challenges the traditional explanation of why state incorporation laws are permissive or enabling, rather than restrictive; it explains that otherwise business organizers could easily have used three other organisational forms to achieve corporate features without creating a corporation de jure. It concludes that the appeal of corporations is their ability to serve as matchmakers or financial intermediaries between borrowers (workers and managers) and savers (shareholders).

Hihn, Jairus Michael

PD February 1986. **TI** Economic and Sociodemographic Variables Affecting Nutritional Quality of Diets: A Review. **AU** Hihn, Jairus Michael; Lane, Sylvia. **AA** Hihn: Artificial Intelligence System, Xerox Special Information Systems. Lane: 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: 395; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 27. **PR** $5.40. **JE** 913. **KW** Nutritional Quality of Diets. Nutrition Education. Nutrient Intake. Dietary Quality.
AB Eleven studies of United States populations were reviewed to ascertain what significant effects economic and sociodemographic variables were found to have on nutritional quality of diets. Nutrient intake was found to increase as income increased, but income had little effect at higher income levels. Education of the female household head, which especially affects vitamin C, and employment of the male household head had positive effects on nutrient intake and dietary quality. Household size, life-cycle stage, age, and sex were the most significant determinants of nutrient intake and dietary quality. Household size seemed to have a negative impact on children; and race, region, and urbanisation had much less of an effect than expected. Hispanics were found to consume relatively more calcium, iron, and vitamin B12 than other ethnic groups; and Blacks consumed more vitamins A and B12. Economic and sociodemographic variables have the most consistent impact on intakes of calories and vitamin C.

Hildebrandt, Gregory G.

PD January 1985. **TI** The Capital Valuation of Military Equipment Conceptual and Measurement Issues. **AA** Rand. **SR** Rand Report: R-3212; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 50. **PR** No Charge. **JE** 114, 215, 614. **KW** Capital Valuation. Military Equipment.
AB This report develops a methodology for measuring the capital value of military assets, and discusses two military capital measures. One measure, called the value of military capital (assessment), summarizes the value of defense assets during a particular year, and is useful for comparing the size of United States and Soviet military inputs. A second measure, called the value of military capital (wealth), summarises the military benefits obtained from defense assets over the remainder of their service lives. The second measure is useful for comparing military wealth with other types of wealth in the economy.

PD October 1985. **TI** Rand Conference on Models of the Soviet Economy, October 11-12, 1984. **AA** Rand. **SR** Rand Report: R-3322; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 173. **PR** No Charge. **JE** 124, 052, 212, 110. **KW** Soviet Economy.
AB This report documents a conference to explore issues associated with modeling the Soviet economy to enhance Western capabilities for accurately assessing the Soviet Union's economic prospects and alternatives. Four major large-scale, economy-wide models of the Soviet Union have been developed in the West over the past few years by Wharton Econometrics, the Central Intelligence Agency, Decision-Science Applications, and The Rand Corporation. Representatives of these institutions discussed their experience with large-scale models, the analytical questions addressed, the principal findings to date, and the focus of current work. They described the structure of each model in four areas: (1) the defense sector and its relationship to the economy; (2) foreign trade and its linkage to the domestic economy; (3) energy and its linkage to growth and trade; and (4) accounting for bottlenecks and other constraints. They then assessed the different modeling approaches and suggested possible future directions in Soviet economic analysis.

Hildenbrand, Werner

PD August 1986. **TI** Equilibrium Analysis of Large Economies. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 72; Sonderforschungsbereich 303 an der Universitat Bonn, Adenaueralleee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** No Charge. **JE** 021. **KW** Equilibrium. Large Economies. Private Ownership. Stable Equilibrium Paradigm.
AB Does economic theory today offer a sound explanation of the "stable equilibrium paradigm?" More specifically, is mathematics useful in such an explanation? These questions will be discussed in this paper.

Hillier, Grant H.

PD September 1986. **TI** Classes of Similar Regions and Their Power Properties for Some Econometric Testing Problems. **AA** Monash University. **SR** Monash Department of Econometrics and Operations Research Working Paper: 15/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, Australia. **PG** 64. **PR** No charge. **JE** 211. **KW** Sufficient Statistics. Nuisance Parameters. Similar Regions. Regression. Non-Sphericity. Seemingly Unrelated Regressions. Lagged Endogenous Variables. Exogeneity.
AB In a hypothesis testing problem involving nuisance parameters for which boundedly complete sufficient statistics exist under the null hypothesis, the class of all similar regions for the problem is characterised by the conditional distribution of the data given these sufficient

statistics. If there exists a one-to-one transformation y mapping into (t, u) of the data, y, to the sufficient statistic, t, and a second vector of statistics, u, that is independent of t under the null hypothesis, then the statistic u itself characterises the class of similar regions. This paper applies this idea to five testing problems of interest in econometrics. In each case we obtain the density of the relevant statistic under the null hypothesis, when it is free of nuisance parameters, and under the alternative. Using the density under the alternative, we discuss the power properties of the class of similar tests for each problem. Other applications are also suggested.

Hodrick, Robert J.

TI Money and the Open Economy Business Cycle: A Flexible Price Model. **AU** Flood, Robert P.; Hodrick, Robert J.

TI An Evaluation of Recent Evidence on Stock Market Bubbles. **AU** Flood, Robert P.; Hodrick, Robert J.; Kaplan, Paul.

Holland, Olaf

PD July 1986. **TI** A Print-Server Operating System. **AU** Holland, Olaf; Krieger, Roland. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 8606-DP; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 44. **PR** No Charge. **JE** 214. **KW** Operating System. International Business Machines Personal Computer.

AB This paper describes a new operating system which turns the International Business Machines Personal Computer XT, AT compatible microcomputer into a manager for up to five arbitrary output devices.

Holt, Charles A.

TI A Theory of Input Exchange Agreements. **AU** Scheffman, David T.; Holt, Charles A.

Holtz, Eakin Douglas

PD June 1986. **TI** Testing for Individual Effects in Dynamic Models Using Panel Data. **AA** Columbia University. **SR** National Bureau of Economic Research Technical Paper: 57; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** No Charge. **JE** 211. **KW** Vector Autoregressions. Panel Data. Dynamic Models. Individual Effects.

AB This note presents a simple, linear test for individual effects in dynamic models using panel data; building upon the techniques of Holtz-Eakin, Newey, and Rosen (HNR) '1985 for estimating vector autoregressions using panel data. While implementing estimators which are consistent in the presence of individual effects is straightforward, there is no guarantee that this form of heterogeneity is an important feature of the data. Moreover, there are advantages to avoiding an individual effects specification. Thus, it is useful to have a test for the existence of individual effects. The test focuses on sample moment conditions implied by the presence of individual effects and is particularly suited for dynamic models using panel data. The calculations follow directly from linear, instrumental variable techniques which are computationally straightforward. Moreover, the test statistics follows directly from the estimation of autoregressive models.

Hopkins, Mark M.

PD February 1985. **TI** The Hopkins-Kennedy Optimal Control Model of the Soviet Economy. **AA** Rand. **SR** Rand Paper: P-7067; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 18. **PR** No Charge. **JE** 124. **KW** Soviet Economy. Total Factor Productivity Growth. Optimal Control.

AB This paper discusses the Hopkins-Kennedy optimal control model of the Soviet economy, placing special emphasis on scenarios concerning weather, foreign trade, energy, alternative views of the basic nature of the Soviet economy, and technology. The model presents results as trade-off curves between consumption and defense for projections initiated in 1980 and run to 1990. The model has 21 production sectors and three factors: labor, and two types of capital. The author finds that optimal control is an excellent tool for analyzing the Soviet economy, and that the largest impact on the results is caused by which of the alternative views (that of Rosefielde and Lee, Igor Birman, or the CIA) of the Soviet economy is assumed to be correct. Finally, for a given view of the Soviet economy, issues concerning the rate of total factor productivity growth are the most important, and research emphasis in this area should be increased.

Hoque, Asraul

PD August 1986. **TI** The Exact Multiperiod Mean-Square Forecast Error for the First-Order Autoregressive Model. **AU** Hoque, Asraul; Magnus, Jan R.; Pesaran, Bahram. **AA** Hoque: University of Rajshahi, Bangladesh. Magnus and Pesaran: London School of Economics. **SR** London School of Suntory Toyota International Center Discussion Paper: #; Suntory Toyota International Center, LSE, 10 Portugal Street, London WC2A 2AE. Portugal Street, London WC2A 2AE. **PG** 35. **PR** No Charge. **JE** 211, 132. **KW** Autoregressive Process. Forecast Bias. Mean-Square Forecast Error. Forecasts.

AB The purpose of this paper is to determine the forecast bias and the mean-square forecast error of the s periods ahead least squares forecast based on n observations generated by the simple (AR(1) process. Two cases are considered which differ in the specification of the initial observation: the stationary case and the non-stationary (fixed sero start up) case.

Horn, Henrik

PD June 1986. **TI** Exchange Rate Policy, Wage Formation, and Credibility. **AU** Horn, Henrik; Torsten, Persson. **AA** Institute for International Economic Studies, Stockholm. **SR** University of Rochester Center for Economic Research Working Paper: 48; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 33. **PR** No Charge. **JE** 026, 431, 831, 824, 130. **KW** Wage Formation. Exchange Rate Policy. Collective Bargaining.

AB This paper analyses the interplay between wage formation and exchange rate policy in a European-type economy with centralised wage bargaining and a high government employment target. By help of a game theoretic approach, it is shown how the absence of international agreements on fixed exchange rates can lead to a devaluation-wage spiral with altering wage shocks and devaluations. The devaluation-wage spiral may be avoided, however, if the government worries enough about its reputation as an inflation fighter.

Horvath, Francis

PD August 1986. **TI** Accepted Wages: Examining Transitions from Unemployment and Out of the Labor Force. **AU** Horvath, Francis; Shack, Marques Janice. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 62; Economic Activity Section, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 25. **PR** No Charge. **JE** 824, 813, 225. **KW** Labor Market Transitions. Starting Wages. Gross Flows. Unemployment.

AB This paper examines the outcomes of transitions to employment of the "newly employed:" those people who begin work within a given month. Using 12 months of matched data from the Current Population Survey, the results show that, in general, the unemployed (who are distinguished from nonparticipants by their job search activity) obtain higher wages on their new jobs than nonparticipants. However, disaggregating the unemployed may lead to spurious conclusions about labor force transitions. Those individuals who were previously out of the labor force do not accept significantly lower wages than either the unemployed who have no previous work experience or the unemployed who have searched for jobs over one year. The reason for nonparticipation is an important determinant of an individual's relative accepted wage.

Hosek, James R.

PD May 1985. **TI** Reenlistment Bonuses and Retention Behavior Executive Summary. **AU** Hosek, James R.; Peterson, Christine E. **AA** Rand. **SR** Rand Report: R-3199-MIL; Rand Corporation,1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 27. **PR** No Charge. **JE** 114, 824. **KW** Military Personnel. Reenlistment.

AB This report considers three outcomes for military personnel nearing a reenlistment decision point--reenlist, extend, or leave--and investigates whether bonuses increase the proportion of personnel staying in service (the retention rate), and whether bonuses affect the selection of longer terms of service (i.e., raise the reenlistment rate over the extension rate). The authors used continuation rate data from the Defense Manpower Data Center for mid-FY 1976 through FY 1981. For each of over 500 occupations across the four services they computed reenlistment, extension, and retention rates at six month intervals, providing a total of 11 observations for each occupation in the analysis file. To these data they added information on reenlistment bonus coverage and amount, a military/civilian wage index variable, the unemployment rate, the percent of personnel without a high school degree or GED, and the percent black. Their analysis supports the contention that lump sum bonuses are more cost effective than installment bonuses in increasing the expected manyears of service in a military occupation.

PD July 1985. **TI** Enlistment Decisions of Young Men. **AU** Hosek, James R.; Peterson, Christine E. **AA** Rand. **SR** Rand Report: R-3238-MIL; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 82. **PR** No Charge. **JE** 114, 851, 811. **KW** Military Enlistment. Human Capital. Career Choice. Recruiter Behavior.

AB This study analyses factors in the enlistment decisions of two segments of the recruiting market: high school seniors, and nonstudent high school graduates. It draws on data from the 1979 Department of Defense 'Survey of Personnel Entering Military Service and from the 1979 wave of the 'National Longitudinal Survey of Labor Force Behavior, Youth Survey . The authors base their empirical analysis on hypotheses derived from the theories of investment in human capital and career choice, and on the theory of recruiter behavior. They find that seniors and graduates differ substantially in the empirical determinants of their enlistment decisions; education expectations play a major role in enlistment behavior; and a graduate's enlistment probability is much less in areas with a fairly high proportion of seniors and recent graduates, whereas a senior's enlistment probability is unaffected.

PD March 1986. **TI** Educational Expectations and Enlistment Decisions. **AU** Hosek, James R.; Peterson, Christine E.; Eden, Rick A. **AA** Rand. **SR** Rand Report: R-3350-FMP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 50. **PR** No Charge. **JE** 114, 811, 851. **KW** Military Enlistment. Educational Expectations.

AB This report focuses on the role of educational expectations in the enlistment decisions of young men who are high school seniors or non-student, high school graduates. It examines the differences in enlistment behavior between individuals who expect more education after high school graduation and those who do not, and considers the implications of those findings for recruiting policy. Among the study's findings are the following: (1) the enlistment behavior of young men differs substantially between the senior and graduate market segments, and within these segments by educational expectations; (2) as an individual's civilian wage rate rises, he becomes less likely to enlist, particularly if no further education is expected; and (3) enlistment is negatively related to family income only for seniors expecting more education, while enlistment for the other groups is unrelated to income. This study extends work presented in R-3238-MIL, 'Enlistment Decisions of Young Men.

Hosek, Susan D.

PD August 1985. **TI** Reconciling Air Force Physicians' Peacetime and Wartime Capabilities Demonstration of a Workforce Design Methodology. **AU** Hosek, Susan D.; Buchanan, Joan L.; Goldberg, George A. **AA** Rand. **SR** Rand Report: R-3202-AF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 160. **PR** No Charge. **JE** 913, 114. **KW** Air Force. Medical Services.

AB This report documents a project to investigate alternative ways of bridging important differences between the Air Force Medical Service's peacetime and wartime missions. It uses information from a Rand survey of Air Force physicians' wartime skills and a mathematical programming model. It summarises the model, documents the results of the skill survey, describes criteria for joint-mission medical manpower planning, and uses the model to analyse the effect of wartime cross-specialty substitution and peacetime resource constraints on physician capability. Among the conclusions suggested by the research are the following: (1) a wartime substitution policy based on the current tri-service substitution list could substantially improve wartime capability; (2) additional improvements would result if the tri-service list were revised in accordance with survey results; and (3) well-designed substitution roles for nonsurgeons can free surgeons to spend most of their time in surgery.

TI Research Plan For The Preferred Provider Organisation Study. AU Ginsberg, Paul B.; Hosek, Susan D.; Duan, Naihua; Luft, Harold S.; Marquis, Susan; Turner, Joan B.

Hotz, V. Joseph

PD March 1986. TI Intertemporal Preferences and Labor Supply. AU Hotz, V. Joseph; Kydland, Finn E.; Sedlacek, Guilherme. AA Hotz: University of Chicago. Kydland and Sedlacek: Carnegie-Mellon University. SR Stanford Hoover Institute Working Paper in Economics: E-86-10; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 52. PR No Charge. JE 821, 824. KW Intertemporal Labor Supply. Nonseparable Preference. Life-Cycle Labor Supply. Intertemporally Separable Preference.

AB Recently, several authors have argued for the use of dynamic preference structures for leisure which incorporate forms of intertemporally nonseparable utility in the analysis of intertemporal labor supply decisions. In this paper, we examine whether or not such nonseparable preference structures are important in characterising microdata on life-cycle labor supply. Using longitudinal data on males from the Panel Study of Income Dynamics, we estimate a model of life-cycle labor supply and consumption under uncertainty in which the structure of intertemporal preference is allowed to be nonseparable in leisure. Our model nests as special cases a number of alternative specifications considered in the literature. We investigate the robustness of our findings to certain forms of population heterogeneity and to some types of model misspecification. Across a number of alternative specifications, we find evidence that the standard assumption of intertemporally separable preferences for leisure is not consistent with data for prime-age males.

Houchens, Robert L.

TI Automobile Accident Compensation Volume IV: State Rules. AU Hammitt, James K.; Houchens, Robert L.; Polin, Sandra S.; Ralph, John E.

PD 1985. TI Automobile Accident Compensation Volume III: Payments from All Sources. AA Rand. SR Rand Report: R-3052-ICJ; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 73. PR No Charge. JE 921, 635. KW Automobile Accident Compensation. No-Fault Insurance. Tort Liability.

AB This report compares outcomes of compensation systems for victims of automobile accidents from three groups of states: (1) no-fault states, with no-fault legislation that restricts tort liability; (2) add-on states, in which no-fault legislation does not restrict tort liability; and (3) tort states, without no-fault legislation. Among the study's conclusions were the following: (1) the probability of an auto accident victim's receiving any payment for his losses is higher in add-on and no-fault states than in tort states; (2) the average payment to the victim is usually nearer his economic loss in no-fault states than it is in tort states and add-on states for small losses; (3) the employer is the single most frequent source for payment of wage loss, and pays exactly the amount of wage loss about eighty percent of the time; and (4) victims in no-fault states appear to have a better chance of getting some compensation for wage loss than do victims in tort states.

Hsiao, Cheng

TI Peak and Off-Peak Industrial Demand for Electricity: The Hopkinson Rate in Ontario, Canada. AU Mountain, Dean C.; Hsiao, Cheng.

Huberman, Gur

PD May 1986. TI Limited Contract Enforcement and Strategic Renegotiation. AU Huberman, Gur; Kahn, Charles. AA University of Chicago. SR Stanford Hoover Institute Working Paper in Economics: E-86-20; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. PG 30. PR No Charge. JE 026, 821. KW Contracts. Renegotiation. Enforcement.

AB This paper presents a strategic theory of contract renegotiation. In this theory, sub-optimal contracts are put in place initially to protect one party against undesirable actions by another party and are renegotiated once the danger is past. When the undesirable actions cannot be monitored by an enforcing agency, complicated procedures might be necessary to achieve desirable actions in the absence of renegotiation. In this paper we develop a model to establish the cases in which simple contracts cannot achieve desirable outcomes, so that only a complicated contract or renegotiation will serve. Unlike most previous accounts of contract renegotiation, this theory does not rely on multiple states of nature to motivate renegotiation.

Hughes, Hallet Andrew

PD May 1986. TI The Impact of Interdependence on Economic Policy Design: The Case of the United States, EEC and Japan. AA The University, Newcastle-Upon-Tyne. SR Centre for Economic Policy Research Discussion Paper: 108; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. PG 53. PR 1 pound sterling ($2) individuals; 1.50 pound sterling ($3) companies, libraries, institutions. JE 122, 133, 400, 423. KW Dynamic Games. Spill-Over Effects. International Policy

Coordination. Interdependence.
AB The world's industrialised economies have become increasingly interdependent over the past 30 years. The policy implications of this mutual dependence obviously depend on the spillover effects between economies: but work on this topic has used simplified models of hypothetical economies, and has therefore failed to clarify the implications of interdependence for policy choices. This paper applies different strategies to linked models of the United States, EEC and Japanese economies to evaluate the importance of spillover effects in policy design. The results indicate that interdependence has strong but asymmetric effects due to differing degrees of market flexibility. The United States performance dominates, while Japanese policies have little impact on the rest of the world. Matching policies produces poor results.

PD April 1986. **TI** Commodity Market Stabilisation and "North-South" Income Transfers: An Empirical Investigation. **AA** Department of Economics, University of Newcastle-Upon-Tyne. **SR** Centre for Economic Policy Research Discussion Paper: 98; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 33. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 133, 411. **KW** Commodity Stabilisation Schemes. Buffer Stocks. North-South Models.
AB Commodity stabilisation agreements have often been suggested as a means of stabilising producers' revenues and redistributing productive resources to less developed economies (from "North" to "South"). But no empirical estimates of how much may be expected from such agreements, nor of what they would cost to operate, have appeared. This paper examines, in the context of one market, how far prices can be stabilised by buffer stock interventions, the costs of that stabilisation, and whether any redistribution would be achieved. We find pure stabilisation leads to transfers away from the South, but that supply restrictions which force redistribution are extremely expensive. However it is relatively cheap to protect producers in the South against the uncertainty of future revenues.

Innes, Robert

PD June 9, 1986. **TI** Brannan Plan Agricultural Supports in a World of Uncertainty and Incomplete Markets: Pareto Superiority and Distribution. **AA** Department of Agricultural and Resource Economics at the University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 417; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 53 p. **PR** $10.60. **JE** 710, 713, 026. **KW** Brannan Plan. Agricultural Supports. Deficiency Payment Program. Pareto Superiority.
AB A government target price/deficiency payment program (the Brannan Plan) pays farmers the difference between a given target price and the prevailing market price for their crop. In a world of certainty, such a program benefits producers, hurts taxpayers/consumers and causes a net welfare loss to society as a whole (i.e., compensation cannot be made so as to preserve or increase competitive equilibrium utilities of all agents). The object of this paper is to show that when there is uncertainty and markets are incomplete, all of these conclusions can be reversed: producers can be worse off, consumers better off and society better off.

PD June 9, 1986. **TI** Moral Hazard and the Genesis of Farm Debt. **AA** Department of Agricultural and Resource Economics at the University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 418; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 49 p. **PR** $9.80. **JE** 710, 714. **KW** Moral Hazard. Farm Debt. Agricultural Finance. Risk Aversion.
AB When a farmer requires external funds for capital purchases, land acquisition or operating expenses, he invariably takes out a loan, a debt contract. That this financing mechanism plays a crucial role in the evolution of the agricultural sector and, more particularly, farm failures, has become abundantly clear as the current agricultural depression has deepened. However, not so obvious is the genesis of debt in agriculture as the financial instrument chosen over equity alternatives. Understanding the predominance of the debt instrument is a natural prerequisite to modelling the foreclosure decision and, hence, to critical analysis of policy proposals for alleviating the farm credit crisis. This paper is intended to help satisfy this prerequisite by exploring one possible explanation for debt's genesis, moral hazard, in some depth.

International Monetary Fund

PD September 1986. **TI** Fund-Supported Programs, Fiscal Policy, and Income Distribution. **AA** International Monetary Fund. **SR** International Monetary Fund Occasional Paper: 46; International Monetary Fund, Washington, D.C. 20431. **PG** 95. **PR** $7.50 ($4.50 to university libraries, faculty, students). **JE** 431, 110, 123, 824, 321. **KW** Fiscal Policies. Balance of Payments Adjustment. International Monetary Fund. Income Distribution.
AB This final paper of a group of three papers dealing with various aspects of Fund-supported adjustment programs (the other two are Occasional Papers Number 41 and Number 42) discusses the effect of these programs on income distribution. The paper focuses on the critical issue of whether income size and distribution would be enhanced or worsened in the medium term without a program. Among the topics discussed are macroeconomic measures in Fund-supported programs, revenue policies, the impact of government expenditure, policies regarding subsidization and state enterprises, and debt financing.

Ito, Takatoshi

PD February 1986. **TI** Why is There Tenure? **AU** Ito, Takatoshi; Kahn, Charles. **AA** Ito: University of Minnesota. Kahn: University of Chicago. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-6; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 39. **PR** No Charge. **JE** 821, 912. **KW** Tenure. Wage Floor.
AB Tenure is a one-sided contract in which an employer gives up a right to dismiss an employee. This paper

demonstrates that arrangements for tenure can be regarded as a wage floor guaranteed to an employee in order to circumvent a moral hasard problem. The guarantee induces a risky human capital investment by the employee which yields payoffs to the employer. Besides assuming that human capital investment is not observable to the employer, our framework assumes the monetary value of the investment to the employer is not verifiable by the employee. Our first model uses risk aversion to generate the wage floor. The second model uses outside offers to create an environment in which the offer is explicitly one sided. It demonstrates that job guarantees with a wage floor can play a productive incentive role despite the employee's use of threats of ex post quits to induce wage renegotiation.

PD March 1986. **TI** News From the US and Japan: Which Moves the Yen/Dollar Exchange Rate? **AU** Ito, Takatoshi; Roley, V. Vance. **AA** Ito: University of Minnesota. Roley: University of Washington. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-11; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 45. **PR** No Charge. **JE** 431. **KW** Exchange Rate. News. Yen. Dollar.
AB Intra-daily movements in the yen/dollar exchange rate were examined in four non-overlapping segments within each business day from January 1980 to September 1985. The empirical results yielded several conclusions. First, most depreciation of the yen (appreciation of the dollar) from late 1982 to early 1984 occurred in the New York market. The direction of the yen was mostly neutral in the Tokyo market. Also, the volatility of the exchange rate decreased considerably in the Tokyo market. The volatility in the New York market, on the other hand, did not decrease until very recently. Second, market efficiency was examined in terms of the random-walk behavior of short-run movements in the yen/dollar rate. Information on the preceding segments within a day was sometimes significant in predicting the exchange rate movement in a market. Third, there is evidence of the "profit-taking" behavior, or overshooting, in that a large jump (more than 3 absolute yen) in any market tends to be reversed by a fifth of the jump during the same day in the next market. Finally, the relative effects of news from the United States and Japan were examined explicitly both with respect to possible major events behind large jumps and the response of the yen/dollar rate to particular economic announcements in both countries. Over the entire sample period, news concerning the United States money stock had the only significant effects.

PD September 2, 1986. **TI** Labor Contracts with Voluntary Quits. **AA** Department of Economics, University of Minnesota; Harvard University. **SR** University of Minnesota Center for Economic Research Discussion Paper: 233; Department of Economics, 1035 Management and Economics Building, University of Minnesota, Minneapolis, MN 55455. **PG** 47. **PR** No Charge. **JE** 821. **KW** Labor Contracts. Labor Mobility. Asymmetric Information.
AB This paper considers characteristics of labor contracts between the risk-neutral firm and risk-averse workers who have heterogeneous outside opportunities (alternative wages). The alternative wage, not verifiable by the firm, becomes known to the worker after costly on-the-job search. The worker voluntarily quits if the outside wage is higher than the contract wage in the firm. If the alternative wage is deterministic, then self-selection among workers over a menu of contract wages would achieve the first-best with efficient allocation of workers in different firms (industries), i.e., productive efficiency, and perfect risk-sharing. If the alternative wages are stochastic, the second-best contract would emerge on a tradeoff between productive efficiency and risk-sharing. Workers who are induced to search in the second-best contracts are fewer than in the first-best; and workers given search are less likely to quit than the first-best. The severance payment for a voluntary leaver serves only incomplete insurance because the exact outcome of search is not known to the firm; and unsuccessful search which force workers to stay is only partially compensated. If search effort is not monitored, even fewer workers conduct search. In sum, workers' stochastic alternative wages, which is private information, yield a contract which induces workers to conduct less search and quits less often than the first-best.

Jakubson, George

PD April 1986. **TI** Estimation and Testing of Fixed Effect Models: Estimating the Union Wage Effect Using Panel Data. **AA** Cornell University. **SR** Princeton Industrial Relations Section Working Paper: 208; Industrial Relations Section, Princeton University, Princeton, NJ 08544. **PG** 53. **PR** No Charge. **JE** 824, 831. **KW** Union Wage Effects.
AB This paper presents estimates of the union wage effect while controlling for person specific unmeasured variables which do not change over time ("fixed effects") as well as specification tests for the person effect models commonly in use. In a sample of men from the PSID, we find that controlling for a person effect results in estimates of the union wage effect on the order of 5-8 per cent, as opposed to 20 per cent in the cross section. An omnibus test based on an unrestricted reduced form and an instrumental variables test based on a differencing idea provide no evidence against the conventional model. A third test, based on a comparison of those who enter and leave union coverage, does provide evidence against the usual model.

PD July 1986. **TI** Measurement Error in Binary Explanatory Variables in Panel Data Models: Why Do Cross Section and Panel Estimates of the Union Wage Effect Differ? **AA** Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 209; Industrial Relations Section, Princeton University, Princeton, NJ 08544. **PG** 53. **PR** No Charge. **JE** 824, 831, 212. **KW** Labor. Union Wage Effects. Panel Data.
AB Cross section estimates of the union wage effect are typically much larger than estimates derived from within estimators using panel data. Two competing explanations for this difference have been advanced. The first is that the cross section estimates suffer from an omitted variables bias due to a correlation between unobserved productivity and union status which biases the cross section estimator upwards. The second is that measurement error in union status is more severe in the changes than in the levels, imparting a more severe downward bias to the panel

estimator. This paper derives a method of moments estimator which allows for both effects, nested within the same model. The binary nature of the explanatory variable is exploited to derive an estimating model which allows simultaneous estimation of both the structural parameters of the model and the parameters of the measurement error process. When the estimator is applied to sample of men from the PSID we find that allowing for measurement error does lead to a larger estimate of the union wage effect than the usual within estimator, but that most of the difference between the cross section and the panel estimates is not due to measurement error in the union variable. Further, the estimates of the extent of measurement error are close to those found in a validation study of the PSID.

PD August 1986. **TI** The Sensitivity of Labor Supply Parameter Estimates to Unobserved Individual Effects: Fixed and Random Effects Estimates in a Nonlinear Model Using Panel Data. **AA** Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 210; Industrial Relations Section, Princeton University, Princeton NJ 08544. **PG** 73. **PR** No Charge. **JE** 824, 813. **KW** Labor Supply. Women. Life Cycle Model. Panel Data.

AB A life cycle model of labor supply predicts the presence of an unobserved individual effect (log marginal utility of wealth) in the labor supply equation which is correlated with the observed explanatory variables, leading to an omitted variables bias in the cross section. We examine the sensitivity of parameter estimates to the presence of unobserved individual effects, using both fixed- and random effect Tobit models. The estimated effects of children are biased away from zero in the cross section. The estimated intertemporal substitution elasticity ranges from 1.1 to 1.7. The results are similar for both fixed and random effects models, and for models using log leisure and hours of work as the dependent variable.

Jensen, Michael C.

PD September 1986. **TI** The Takeover Controversy: Analysis and Evidence Corporate Takeovers. **AA** Graduate School of Management, University of Rochester. **SR** University of Rochester Managerial Economics Research Center Working Paper: 86-01; Graduate School of Management, University of Rochester, Rochester, NY 14627. **PG** 70. **PR** No Charge. **JE** 521, 611, 514, 512. **KW** Takeover. Free Cash Flow. Mergers. Leveraged Buyout. Strip Financing. Poison Pill. Targeted Repurchase. Greenmail. High Yield Bonds. Growth.

AB Economic analysis and evidence indicate the market for corporate control is benefiting shareholders, society, and the corporation as an organizational form. Activities in this market are restructuring much of corporate America, and the resulting changes impose new costs on top managers of the country's largest corporations. The changes also threaten other interest groups such as employees, politicians, and community activists who would prefer to avoid the changes generated by these control transactions. The resulting controversy has led to major pressures to regulate and restrict this market. This paper reviews and analyses the major issues in the controversy and the available evidence. The analysis indicates that: (1) takeovers play a major role in facilitating exit from activities that must shrink, and they thereby reduce the agency costs of free cash flow, (2) debt plays an important role in bonding management promises to pay out future cash flows, to reduce costs and to reduce investments in low-return projects, (3) high-yield bonds are an important financial innovation that help to eliminate mere size as a takeover deterrent, (4) markets do not cause managers to behave myopically, (5) poison pill securities issued without approval of shareholders are entrenching managers and threaten the long-run survival of the corporation, (6) golden parachutes are important contracting devices to reduce the conflicts between shareholders and managers around times of change in control, (7) application of the business judgment rule by the courts to control controversies is turning important control rights over to managers and boards and threatens both the viability of the business judgment rule itself as well as the survival of the corporation, (8) SEC Schedule 13d disclosure requirements create externalities in the takeover market -- that is, large differences between the social and private benefits of takeover -- which reduce economic efficiency.

Johnson, Frederick I.

PD August 1986. **TI** Market Definition Under The Merger Guidelines: Critical Demand Elasticities. **AA** Bureau of Economics, Federal Trade Commission. **SR** Federal Trade Commission Bureau of Economics Working Paper: 142; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Avenue Northwest, Washington, DC 20580. **PG** 13. **PR** No Charge. **JE** 612, 611. **KW** Market Definition. Merger Guidelines. Critical Demand Elasticities.

AB The 1984 DOJ Merger Guidelines define geographic and product markets as an area and a group of products such that a cartel of suppliers in that area would find it profitable to raise the price by a small amount. Since the profitability of a price rise depends on the own-price elasticity of demand, the Guidelines implicitly define relevant markets in terms of this elasticity. The precise value of the critical elasticity for market definition depends on several parameters, including the size of the price rise and its duration. It also depends on the underlying cost function. This paper shows how the critical demand elasticity can be expressed as a function of the supply elasticity, provides estimates of the critical demand elasticity for several price rules, and discusses statistical tests of market definition under this approach.

Johnson, Leland L.

PD September 1984. **TI** Testimony And Exhibit Before The Arizona Corporation Commission. **AA** Rand. **SR** Rand Note: N-2191-ACC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 118. **PR** No Charge. **JE** 613, 723, 722. **KW** Incentive Regulation. Electric Utility Performance. Electricity Rates.

AB This Note contains the full text of testimony presented before the Arizona Corporation Commission in an electricity rate proceeding involving the Arizona Public Service Company (APS), an investor-owned utility headquartered in Phoenix. The testimony was directed to specific circumstances and issues faced by APS in its involvement in the nearly completed Palo Verde nuclear process plant. The Note also includes an exhibit on incentive regulation. A related report, 'Incentives To *Improve Electric Utility Performance: Opportunities* and Problems, B-3245-RC, uses material from both the APS rate case and a wide range of published literature to treat these issues more generally in order to shed light on the opportunities and problems of improving electric utility performance.

TI Regulation of Media Ownership by the Federal Communications Commission - An Assessment. **AU** Besen, Stanley M.; Johnson, Leland L.

PD March 1985. **TI** Incentives To Improve Electric Utility Performance. **AA** Rand. **SR** Rand Report: R-3245-RC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 108. **PR** No Charge. **JE** 613, 723, 635. **KW** Electric Utilities. Incentives. Rate Base. Construction Work in Progress.
AB This report uses material from a recent Arizona Public Service Company rate case, and published literature, to address several issues generic to the electric utility industry: the effects on utility incentives and on rates to customers of including "construction work in progress" (CWIP) in the rate base; the use of prudence tests by regulators to determine what costs should, and which should not, be passed on to ratepayers; and the use of incentive programs, with explicit rewards and penalties, to reduce the construction costs of large power plants and to improve their operating performance after they go into service. It draws three major conclusions: First, economic principles do not support the notion that cost recovery from ratepayers should begin only after a plant is used and useful. Second, traditional accounting practices produce rate shocks that force prices upward at the very time that the costs of using a plant are declining. Putting CWIP in the rate base is one of the ways rate shocks can be reduced. Third, although including CWIP in the rate base may generate perverse incentives, the exclusion of CWIP from the rate base can also generate perverse incentives for utilities faced with severe cash flow problems.

PD December 1985. **TI** Telecommunications Alternatives For Federal Users Market Trends and Decision Making Criteria. **AU** Johnson, Leland L.; Sirbu, Marvin A.; Mitchell, Bridger M. **AA** Rand. **SR** Rand Report: R-3355-NSF; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 232. **PR** No Charge. **JE** 510, 635. **KW** Telecommunications Alternatives. Federal Users. Market Trends. Decisionmaking.
AB Decisionmaking in telecommunications procurement has become more difficult in recent years because of rapid technological advances, changing agency needs, and increasingly competitive markets for voice and data transmission and related equipment. This report identifies the kinds of basic information that federal agencies should collect, and the ways in which they should use it, to improve their procurement decisions. More specifically, the study has four major objectives: (1) to identify and assess options for meeting voice and data needs, taking into account technical, economic, and regulatory constraints; (2) to show how federal agencies can evaluate their needs in light of the options for satisfying them; (3) to establish criteria for evaluating the relative merits of options in light of these needs; and (4) to construct a *decisionmaking framework for choosing among options*, taking into account uncertainties about costs, performance, and benefits.

Johnson, Manuel H.

PD June 1986. **TI** The Yen-Dollar Relationship: A Recent Historical Perspective. **AU** Johnson, Manuel H.; Loopesko, Bonnie E. **AA** Johnson: Board of Governors of the Federal Reserve System. Loopesko: International Finance Division, Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 288; International Finance Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 42. **PR** No Charge. **JE** 430, 431, 432. **KW** Exchange Rates. International Monetary System. Japan. Trade. Yen-Dollar Relationship.
AB This paper explores the interaction between exchange rate alignment and external balance for Japan and the United States. The analysis highlights the influence of current account developments on the yen-dollar exchange rate, as well as the reverse, and the interaction between the capital account and the exchange rate. We first sketch the broad outlines of the factors driving medium-run swings in the yen-dollar exchange rate over the floating rate period. After a brief consideration of the implications of financial liberalisation for the yen-dollar exchange rate, the paper takes a more detailed look at the secular developments underlying movements in the yen-dollar relationship, tracing the evolution over the past two-and-a-half decades of some of the more salient structural features of the American and Japanese economies. Developments in each economy related to productivity, the composition and regional pattern of trade, real wages, the terms of trade and the savings-investment balance provide insights into the longer-run trends of the Japanese current account and associated pressures for yen appreciation over time. Finally, we weigh the relative contributions of changes in the exchange value of the yen and other economic factors in fostering more balanced trade between Japan and its major trading partners, including the United States. Evidence from the Multi-Country Model indicates that a 35 percent appreciation of the yen against the dollar over time will reduce Japan's surplus with the United States by $20 billion.

Johnson, Robert A.

PD July 1986. **TI** Incomplete Insurance, Irreversible Investment, and the Microfoundations of Financial Intermediation. **AA** International Finance Division, Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 289; International Finance Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 45. **PR** No Charge. **JE** 314, 020. **KW** Financial Intermediation. Risk. Insurance.
AB The financial intermediary is shown to result from a market imperfection related to the costly monitoring of the actions of consumers. In such an environment complete insurance is not obtainable and consumers respond by

holding some of their wealth as precautionary balances in order to self-insure. Precautionary balances are those financial vehicles which permit one to invest and then liquidate with the smallest amount of loss because of the "sunk costs" associated with the transaction. An economy of N identical consumers is created and it is shown that a financial intermediary which collects the precautionary balances of the community can then implement risk sharing and liberate social resources for greater investment.

PD July 1986. **TI** Incomplete Insurance, Irreversible Investment, and the Microfoundations of Financial Intermediation. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 289; International Finance Division, Stop 24, Board of Governors of the Federal Reserve System, Washington D.C. 20551. **PG** 45. **PR** No Charge. **JE** 314, 311. **KW** Financial Intermedition. Precautionary Balances. Insurance. Risk Sharing.
AB The financial intermediary is shown to result from a market imperfection related to the costly monitoring of the actions of consumers. In such an environment complete insurance is not obtainable and consumers respond by holding some of their wealth as precautionary balances in order to self-insure. Precautionary balances are those financial vehicles which permit one to invest and then liquidate with the smallest amount of loss because of the "sunk costs" associated with the transaction. An economy of N identical consumers is created and it is shown that a financial intermediary which collects the precautionary balances of the community can then implement risk sharing and liberate social resources for greater investment.

Joyce, Theodore J.

PD June 1986. **TI** The Demand for Heath Inputs and Their Impact on the Black Neonatal Mortality Rate in the United States. **AA** Iona College. **SR** National Bureau of Economic Research Working Paper: 1966; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 913, 917, 841. **KW** Health. Black Neonatal Mortality Rate. Family Planning.
AB Relatively high birth rates among black adolescents and unmarried women as well as inadequate access to medical care are considered primary reasons why the black neonatal mortality rate is almost double that of whites. Using household production theory, this paper examines the determinants of input utilisation and estimates the impact of utilisation on the survival of black infants across large counties in the United States in 1977. The results indicate that expanding the availability of family planning clinics increases the number of teenagers served resulting in a lower neonatal mortality rate. Accessibility to abortion services operates in a similar manner. Moreover, the use of neonatal intensive care, which is strongly related to its availability, is an important determinant of newborn survivability whereas the initiation of early prenatal care is not. Overall, the results suggest that lowering the incidence of low weight and preterm births among blacks by helping women to avoid an unwanted birth, may be the most cost-effective way of improving black infant health.

Kaas, R.

PD February 1985. **TI** Necessary and Sufficient Conditions for Stochastic Dominance. **AU** Kaas, R.; Goovaerts, M. J. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 3/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 9. **PR** No Charge. **JE** 213, 521. **KW** Stochastic Dominance. Security Portfolios.
AB The mathematical concept of stochastic dominance was introduced to describe preference of one random gain over another. We show that for bounded gains apart from the mathematical definition there is a more natural interpretation: one gain dominates another if the expected values of a class of non-decreasing functions are larger. This class of functions includes all natural utility functions. Some special choices give the necessary conditions for stochastic dominance derived by W.H. Jean (1980, 1984). We also provide some easy ways to check sufficient conditions for stochastic dominance. It is argued that if the difference of the densities of two gains has n-1 sign changes and certain moment relations are satisfied, one dominates the other stochastically for order n.

PD April 1985. **TI** Ordering of Risks and Weighted Compound Distributions. **AU** Kaas, R.; Goovaerts, M. J.; Vanderbroeck, M. **AA** Kaas and Goovaerts: University of Amsterdam. Vanderbroeck: K. U. Leuven. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 8/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 12. **PR** No Charge. **JE** 026, 211. **KW** Ordering of Risks. Compound Distributions.
AB Some invariance properties of net stop loss ordering of risks are examined and proved in the framework of weighted compound distributions.

PD April 1985. **TI** Bounds on Distribution Functions Under Integral Constraints. **AU** Kaas, R.; Goovaerts, M. J. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 6/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 18. **PR** No Charge. **JE** 213. **KW** Bounds on Distribution Functions. Moments. Integral Constraint.
AB Analytical results are obtained for the problem of deriving bounds on a distribution function allowed to vary under integral constraints.

PD June 1985. **TI** Bounds on Stop-Loss Premiums for Compound Distributions. **AU** Kaas, R.; Goovaerts, M. J. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 11/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 7. **PR** No Charge. **JE** 213. **KW** Stop-Loss Premium. Claim Severity.
AB Upper and lower bounds are derived for the stop-loss premium of compound distributions with fixed claim number and known mean, variance and range for the claim severity distribution.

Kahn, Charles

TI Why is There Tenure? **AU** Ito, Takatoshi; Kahn, Charles.

TI Limited Contract Enforcement and Strategic Renegotiation. **AU** Huberman, Gur; Kahn, Charles.

PD September 15, 1986. **TI** Competitive Efficiency Wage Models with Keynesian Features. **AU** Kahn, Charles; Mookherjee, Dilip. **AA** Kahn: Department of Economics, University of Chicago and Hoover Institution. Mookherjee: Graduate School of Business, Stanford University. **SR** Stanford Graduate School of Business Research Paper: 901; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 38. **PR** No Charge. **JE** 021, 023, 321. **KW** Efficiency Wages. Effective Demand. Multiplier. Underemployment. Involuntary Unemployment.
AB Competitive general equilibrium models with efficiency wage features are used to analyze some Keynesian propositions. The models are characterised by fully optimising agents, flexible prices, competitive markets, and absence of demand uncertainty or credit constraints for firms. Each has a unique competitive equilibrium with underemployment in a sector (called manufacturing) with efficiency wages, relative to a self-employment sector. In the former sector, workers are typically laid off involuntarily, and jobs may be rationed. Since our models have flexible prices, the multiplier of manufacturing output with respect to autonomous demand changes may or may not exceed unity: demand changes lead to price effects as well as income effects that work opposite each other. Nevertheless, there always exist government policies that achieve Pareto improvements by switching demand towards the manufacturing sector. Optimal demand switching policies are explicitly characterised. We show that the size of the multiplier need have no relation to the size of the optimal intervention, and the government should stabilise the economy with respect to technology shocks more actively than to demand shocks.

PD October 1986. **TI** Competitive Efficiency Wage Models with Keynesian Features. **AU** Kahn, Charles; Mookherjee, Dilip. **AA** Kahn: University of Chicago. Mookherjee: Graduate School of Business, Stanford University. **SR** Stanford Hoover Institution Working Paper in Economics: E-86-59; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 44. **PR** No Charge. **JE** 021, 023, 321. **KW** Involuntary Unemployment. Efficiency Wages. Multiplier. Effective Demand.
AB Competitive general equilibrium models with efficiency wage features are used to analyze some Keynesian propositions. The models are characterized by fully optimising agents, flexible prices, competitive markets, and absence of demand uncertainty or credit constraints for firms. Each has a unique competitive equilibrium with underemployment in a sector (called manufacturing) with efficiency wages, relative to a self-employment sector. In the former sector, workers are typically laid off involuntarily, and jobs may be rationed. Since our models have flexible prices, the multiplier of manufacturing output with respect to autonomous demand changes may or may not exceed unity: demand changes lead to price effects as well as income effects that work opposite each other. Nevertheless, there always exist government policies that achieve Pareto improvements by switching demand towards the manufacturing sector. Optimal demand switching policies are explicitly characterized. We show that the size of the multiplier need have no relation to the size of the optimal intervention, and the government should stabilize the economy with respect to technology shocks more actively than to demand shocks.

Kalaba, Robert

PD September 1985. **TI** Nonlocal Comparative Statics, Automatic Derivatives, and Nonlinear Filtering: Recent Developments at University of Southern California. **AU** Kalaba, Robert; Tesfatsion, Leigh. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8518; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 16. **PR** No Charge. **JE** 214. **KW** Nonlocal Comparative Statics. Derivatives. Nonlinear Filtering.
AB The present note summarizes work on computational methods recently undertaken by faculty, students, and associates of the Department of Economics at the University of Southern California. Section I focuses on nonlocal comparative statics, section II focuses on automatic derivative evaluation, and section III focuses on nonlinear filtering.

PD November 1985. **TI** Automatic Differentiation of Functions of Derivatives. **AU** Kalaba, Robert; Tesfatsion, Leigh. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8529; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 28. **PR** No Charge. **JE** 213, 214. **KW** FEED. Differentiation.
AB In a recent paper '2 an algorithm FEED is introduced for the systematic exact evaluation of higher-order partial derivatives of functions of many variables. The present paper demonstrates that FEED can be applied to a much broader class of functions than envisioned in '2. Specifically, FEED can be used to evaluate the higher-order partial derivatives of functions which are defined in terms of the derivatives of other functions, a task required in many applications.

Kalter, Eliot

TI International Capital Markets: Developments and Prospects. **AU** Watson, Maxwell; Mathieson, Donald; Kincaid, Russell; Kalter, Eliot.

Kamberg, Caren J.

TI How Free Care Reduced Hypertension of Participants in the Rand Health Insurance Experiment. **AU** Keeler, Emmett B.; Brook, Robert H.; Goldberg, George A.; Kamberg, Caren J.; Newhouse, Joseph P.

TI How Free Care Reduced Hypertension of Participants in the Rand Health Insurance Experiment.

AU Keeler, Emmett B.; Brook, Robert H.; Goldberg, George A.; Kamberg, Caren J.; Newhouse, Joseph P.

Kamins, Milton

TI AURA Applications Division-Level Transportation and Selected Spares Issues. **AU** Shishko, Robert; Kamins, Milton.

Kane, Alex

PD June 1986. **TI** The Valuation of Security Analysis. **AU** Kane, Alex; Marcus, Alan J. **AA** Boston University. **SR** National Bureau of Economic Research Working Paper: 1958; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313, 521. **KW** Security Analysis. Portfolio Management. Stock Selection. Valuation.

AB Active portfolio management is commonly partitioned into two types of activities: market timing, which requires forecasts of broad-based market movements, and security analysis, which requires the selection of individual stocks that are perceived to be underpriced by the market. Merton (1981) has provided an insightful and easily-implemented means to place a value on market timing skills. In contrast, while a normative theory of stock selection was outlined long ago in Treynor and Black's (1973) work, no convenient means of valuing potential selection ability has yet been devised. We present a framework in which the value of a security analyst can be computed. We also treat market timing ability in this framework, and therefore can compare the relative values of each type of investment analysis. We find that stock selection is potentially extremely valuable, but that its value depends critically on the forecast interval, on the correlation structure of residual stock returns, and on the ability to engage in short sales. Finally, we show how to modify the value of selection for the important case in which analysts' forecasts of stocks' alphas are subject to error.

Kaplan, Paul

TI An Evaluation of Recent Evidence on Stock Market Bubbles. **AU** Flood, Robert P.; Hodrick, Robert J.; Kaplan, Paul.

Keeler, Emmett B.

TI The Effect of Cost Sharing on the Use of Medical Services by Children - Interim Results from a Randomized Controlled Trial. **AU** Leibowitz, Arleen; Manning, Willard G. Jr; Keeler, Emmett B.; Duan, Naihua; Lohr, Kathleen N.; Newhouse, Joseph P.

TI The Effect of Cost Sharing on the Use of Medical Services by Children - Interim Results from a Randomized Controlled Trial. **AU** Leibowitz, Arleen; Manning, Willard G. Jr; Keeler, Emmett B.; Duan, Naihua; Lohr, Kathleen N.; Newhouse, Joseph P.

PD October 1985. **TI** How Free Care Reduced Hypertension of Participants in the Rand Health Insurance Experiment. **AU** Keeler, Emmett B.; Brook, Robert H.; Goldberg, George A.; Kamberg, Caren J.; Newhouse, Joseph P. **AA** Rand. **SR** Rand Report: R-3326-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 46. **PR** No Charge. **JE** 913. **KW** Health Insurance. Free Health Care. Hypertension.

AB In a controlled trial of the effects of medical insurance on spending and health status, the authors previously reported lower average diastolic blood pressure levels (0.8 mm Hg) with free care than with cost-sharing plans. In this report they show that for clinically defined hypertensives, blood pressure levels with free care were significantly lower (1.9 mm Hg) with larger differences for low-income hypertensives than for high-income ones (3.5 compared with 1.1 mm Hg), but with similar differences between blacks and whites. The cause of the difference was the additional contact with physicians under the free-care plan; this led to better detection and treatment of hypertensives not under care at the start of the study. Free care also led to higher compliance by hypertensives with diet and smoking recommendations, and higher use of medication by those who needed it.

TI The Episodes-of-Illness Processing System. **AU** Keesey, Joan; Keeler, Emmett Fowler William.

Keesey, Joan

PD January 1985. **TI** The Episodes-of-Illness Processing System. **AU** Keesey, Joan; Keeler, Emmett Fowler William. **AA** Rand. **SR** Rand Note: N-1745-1-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 67. **PR** No Charge. **JE** 214, 913. **KW** Health Insurance Claims Processing. Episode-of-Illness Programs.

AB This Note documents the methods and assumptions used to process the expenditure claims of families and organize them into episodes which reflect the economics of participants' medical decisions. It discusses the potential advantages of shorter-than-usual analysis, and the rationale for economic episodes; gives an overview of what happens to the claims from their arrival at the insurance plans administrator to their emergence as a series of dated and classified episodes; provides a description of the study's assumptions and procedures.

Khan, M. Ali

PD October 1986. **TI** An Extension of the Second Welfare Theorem to Economies with Nonconvexities and Public Goods. **AU** Khan, M. Ali; Vohra, Rajib. **AA** Kahn: University of Illinois. Vohra: Brown University. **SR** University of Illinois at Urbana-Champaign Bureau of Economic and Business Research Faculty Paper: 1290; Department of Economics, University of Illinois at Urbana-Champaign, 1206 South 6th Street, Champaign, IL 61821. **PG** 24. **PR** No Charge. **JE** 024, 022, 021. **KW** Nonconvex Production Sets. Second Welfare Theorem. Tangent Cones.

AB In this paper, we report a generalization of the results of Foley and Guesnerie on the second welfare theorem to economies with arbitrary nonconvex production sets. The nature of marginal cost prices in such economies is clarified through the use of the Clarke tangent cones.

Khan, Mohsin S.

PD November 1985. **TI** Fund-Supported Adjustment Programs and Economic Growth. **AU** Khan, Mohsin S.; Knight, Malcolm D. **AA** Khan: Development Research

Department, World Bank. Knight: Research Department, International Monetary Fund. **SR** International Monetary Fund Occasional Paper: 41; International Monetary Fund, Washington, D.C. 20431. **PG** 33. **PR** $7.50 ($4.50 to university libraries, faculty, students). **JE** 431, 110. **KW** Balance of Payments Adjustment. International Monetary Fund. Macroeconomic Policies. Growth Theory.

AB The authors of this study apply empirical evidence to the issue of the relationship between Fund-supported programs and economic growth. They suggest that the view that Fund programs systematically reduce growth arises from the misconception that these programs are designed solely to reduce aggregate demand through the use of contractionary, monetary, and fiscal policies. This interpretation, they contend, is far too narrow and ignores the many growth-inducing measures found in these programs. The authors call for more systematic empirical studies evaluating the contention that Fund programs are unnecessarily deflationary and for the design of models to compare actual Fund programs with desired hypothetical results.

Khandkar, Rezaul

PD October 1985. **TI** The Effect of Temporary Versus Permanent Job Separation on the Reservation Wage and Job Search Strategy of the Unemployed. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8528; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 45. **PR** No Charge. **JE** 821, 824. **KW** Lay-Offs. Search. Reservation Wages.

AB Temporarily laid-off individuals have a higher reservation wage in the search for new jobs elsewhere compared to unemployed individuals with no job attachment. This is partly because of a recall possibility from the old job and partly because the wage at the old job is known with certainty. Optimal sequential search dynamics is modelled for both types of individuals taking into consideration the differences in the rates of future separations and offer arrivals. The value functions are implicitly solved and the reservation wages compared. The Current Population Survey (C.P.S.) data on the job-seeking unemployed is used to compare reservation wage estimates for the two groups and the theoretical contentions are verified. Controlling for observable personal characteristics and other determinants of search costs, it is found that the unemployed workers with job attachments have a higher reservation wage.

Kincaid, Russell

TI International Capital Markets: Developments and Prospects. **AU** Watson, Maxwell; Mathieson, Donald; Kincaid, Russell; Kalter, Eliot.

King, Mervyn A.

PD August 1986. **TI** The Cash Flow Corporate Income Tax. **AA** London School of Economics. **SR** National Bureau of Economic Research Working Paper: 1993; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323, 520. **KW** Cash Flow Corporate Income Tax. Fiscal Neutrality. Tax Reform. Investment.

AB The current debate on tax reform has raised again the question of how the corporate tax system should be altered. The cumulative effect of piecemeal changes to the tax system has been to produce major distortions in the pattern of savings and investment and falling revenue in real terms. To overcome these problems, reform, both in the United States and United Kingdom, has focussed on ways to tax the real economic income of companies. The main problems with this approach are the difficulties of (a) indexing the tax treatment of income from capital in a comprehensive manner and (b) defining economic depreciation. This paper discusses an alternative way to obtain the objective of fiscal neutrality without a significant erosion of the tax base. The implications of such a cash flow corporate income tax for financial and investment decisions are discussed both theoretically and in terms of potential and administrative and practical problems of implementation.

PD August 1986. **TI** The Empirical Analysis of Tax Reforms. **AA** London School of Economics. **SR** National Bureau of Economic Research Working Paper: 1996; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 323, 022. **KW** Tax Reform. Preference Orderings. Welfare.

AB Over the last decade increasing use has been made of individual household data to analyse the gains and losses from tax reform. Much attention has been paid to the econometric estimation of models of household responses to taxes. But these models yield valid estimates of the welfare consequences of tax changes only when the implied preference orderings are well behaved. This paper discusses the nature of such conditions in detail. Where there are nonlinearities in the budget constraint then two sets of "primal" and "dual" conditions must be satisfied. The analysis of these conditions yields suggestions for the specification of behavioural models and the use of individual-specific information in the observed data.

Kis, Peter

PD January 1986. **TI** Computable General Equilibrium (CGE) Models for Socialist Economies. **AU** Kis, Peter; Robinson, Sherman; Tyson, Laura D. **AA** Kis: National Planning Office of Hungary. Robinson: Department of Agricultural and Resource Economics, University of California, Berkeley. Tyson: Department of Economics, University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics(Cudare) Working Paper: 394; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 42. **PR** $8.40. **JE** 124, 113, 052, 212, 021. **KW** Computable General Equilibrium Models. Economic Planning. Input-Output Models. Hungary. Yugoslavia.

AB In this paper, we describe the basic features of the Hungarian and Yugoslav Computable General Equilibrium models, identifying the important similarities and differences between them. Since descriptions of the Yugoslav model are already published, we focus the discussion more on the Hungarian model. We also present some results of simulations of the Hungarian model over the 1981-85 period. A comparison of model results under alternative assumptions allows one to identify how economic performance would have been affected by different economic conditions. In this paper, the simulations are designed to sort out the relative importance of external shocks and internal policy responses to economic performance in Hungary during the 1981-85 adjustment period. The focus in on the genesis of the foreign-exchange shortage and the nature of policy reaction to it during the period. Simulations with a similar focus for Yugoslavia have already been published.

Kiviet, Jan F.

PD November 1985. **TI** The Importance and Performance of Tests for the Selection of Instrumental Variables. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 23/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 22. **PR** No Charge. **JE** 211. **KW** Specification Testing. Instrumental Variables. Exogeneity. Interdependence of Tests.

AB In this paper it is demonstrated that testing models for misspecification by OLS-based variable addition may lead to the acceptance of reduced form equations or other hybrid relationships derived from the structural form. The awkward result is obtained that in order to acquire consistent estimates of structural parameters some regressors that appear as significant are sometimes better removed from the specification. This illustrates the need for tests on the validity of exogeneity assumptions. From application of the variable addition approach to a single linear simultaneous regression model three basic types of tests for instrument adequacy are developed, vis. tests for exogeneity of the maintained instruments, for exogeneity of excluded regressors, and for exogeneity of included regressors. Finally it is shown which orderings of these tests and tests on the adequacy of the specification will lead to asymptotic independence of the test statistics. Such orderings enable to exercise control over the overall type I error probability in a comprehensive model selection procedure.

Knight, Malcolm D.

TI Fund-Supported Adjustment Programs and Economic Growth. **AU** Khan, Mohsin S.; Knight, Malcolm D.

Kohler, Daniel F.

TI Existing Chemicals Regulation Under the Toxic Substances Control Act: Models And Methods for Policy Evaluation. **AU** Palmer, Adele R.; Kohler, Daniel F.

Kohnert, Peter W.

TI Aging and Social Expenditure in the Major Industrial Countries, 1980-2025. **AU** Heller, Peter S.; Hemming, Richard; Kohnert, Peter W.

Komura, Chikara

PD July 1986. **TI** Money and Income Causality in Japan under the Flexible Exchange Rate Regime: 1971-1983. **AA** Department of Economics, University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 230; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 24. **PR** No Charge. **JE** 131, 311, 431, 122. **KW** Money. Income. Causality. Japan. Flexible Exchange Rates.

AB The paper examines Granger-causal relationships between money and income and its components in Japan under the flexible exchange rate regime. Through Sims' test and the Granger-Sargent test, M2CD and both Gross National Product and real GNP appear to be in a bidirectional feedback relationship, while the GNP deflator is unidirectionally causal to M2CD. The findings conform to Mundell's theory and the liberalisation of financial capital flows in December 1980. Analytical results are also confirmed with the impulse response based on the three-variate autoregressive model.

Korte, Bernhard

PD March 1986. **TI** The Intersection of Matroids and Antimatroids. **AU** Korte, Bernhard; Lovass, Laszlo. **AA** Korte: University of Bonn. Lovass: University of Budapest. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86413; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 18. **PR** No Charge. **JE** 213. **KW** Combinatorial Structure. Matroids. Greedoids. Antimatroids.

AB Antimatroids are combinatorial structures abstracting some properties of convexity, and in a sense dual to matroids. Greedoids are common generalisations of matroids and antimatroids. We introduce a general operation to produce a greedoid from a matroid and an antimatroid. Greedoids arising by this operation are called trimmed matroids. Many known classes of greedoids are shown to be trimmed matroids. We derive two submodularity properties of trimmed matroids and a subclass of them called polymatroid greedoids. These are used to verify the properties of a rather elaborate counterexample, which shows that certain local properties do not characterise trimmed matroids and polymatroid greedoids (as was conjectured in an earlier paper).

Korte, Norbert

PD July 1986. **TI** A Simple Linear-Time Algorithm to Recognise Interval Graphs. **AU** Korte, Norbert; Mohring, Rolf H. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86421; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** No Charge. **JE** 213. **KW** Interval Graphs. On-Line Recognition. Graph Algorithm. Perfect Elimination Scheme. Modified PQ-Tree.

AB The fastest known algorithm for recognising interval graphs iteratively manipulates the system of all maximal cliques of the given graph in a rather complicated way in order to construct a consecutive arrangement (more precisely: a tree representation of all possible such consecutive arrangements). We present a much simpler algorithm which uses a related, but much more informative tree representation of interval graphs. This tree is constructed in an on-line fashion by adding vertices to the graph in a predefined order such that adding a vertex u takes O(det Adj(u) *symbol*) amortized time.

Krelle, Wilhelm

PD May 1986. **TI** Long-Term Fluctuation of Technical Progress and Growth. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B 44; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 43. **PR** No Charge. **JE** 131, 111, 122. **KW** Technical Progress. Economic Growth.

AB We show that, after a rise in the fifties and early sixties, there was a substantial decline of the rate of technical progress and of the average rates of growth during the last 15 years in the most important developed countries in East and West. We also demonstrate that the savings ratio and the rate of transfer from invention to innovations followed the same pattern. We explain this movement by a latent variable called entrepreneurship which measures the degree of economic activity in the population. We estimate the time series of this latent variable for several countries and show that they follow a sinosoidal pattern. The cyclical movement of "entrepreneurship" induces similar fluctuations in the rate of technical progress and in the savings ratio which in turn are responsible for the long term fluctuations of the growth path. The cyclical fluctuations of "entrepreneurship" may be explained by the transfer of information and valuation from person to person within a society.

Krieger, Roland

TI A Print-Server Operating System. **AU** Holland, Olaf; Krieger, Roland.

Krueger, Alan B.

PD June 1986. **TI** Reflections on the Inter-Industry Wage Structure. **AU** Krueger, Alan B.; Summers, Lawrence H. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 1968; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 824. **KW** Inter-Industry Wage Structure.

AB This paper reviews available evidence on the inter-industry wage structure. The inter-industry wage structure is remarkably similar in different eras, in different countries, and among different types of workers. Industries with high capital-to-labor ratios, monopoly power and high profits pay relatively high wages. We conclude that the competitive model cannot without substantial modification provide an adequate explanation of the inter-industry wage structure. The implications of this finding for micro and macro economic theory and policy are examined.

Krugman, Paul

PD June 1986. **TI** Is the Japan Problem Over? **AA** M.I.T. **SR** National Bureau of Economic Research Working Paper: 1962; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 431, 122, 422. **KW** Japanese Exports. Export Growth. Trade Structure.

AB This paper argues that Japan's export growth is likely to slow sharply over the next few years, perhaps to zero. *For the past dozen years Japan's export volume has* grown much more rapidly than her domestic production. This divergence was made necessary primarily by rising oil prices, and secondarily by a shift into current account surplus. Now both these factors are running in reverse. If Japan's export growth does slow sharply, the mechanism will be a very strong yen -- probably above 140. The paper argues that it is Japan's export growth rather than static trade structure that is the main cause of trade tension, so these developments should lead to a considerable reduction in trade friction.

Kumbhakar, Subal C.

PD July 1985. **TI** Specification of Input-Specific Technical and Allocative Inefficiency in Stochastic Production and Profit Frontiers. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8512; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 23. **PR** No Charge. **JE** 022, 211. **KW** Stochastic Production Functions. Allocative Inefficiency. Technical Inefficiency.

AB Schmidt and Lovell (1979, hereafter SL) extended the idea of Stochastic Frontier Production models as proposed by Aigner et al. (1977) and by Meeusen and van den Broeck (1977) to estimate technical and allocative inefficiency in a cost minimizing framework. The purpose of this paper is to clarify some of the remarks made by SL about the profit maximizing hypothesis and to analyse methods of estimation for production parameters and inefficiencies in the context of panel data. It is also shown that Hotelling's Lemma cannot be applied to get the input demand and output supply functions in these models.

PD October 1985. **TI** Econometric Models for Input-Specific Technical and Allocative Inefficiency: United States Class 1 Railroads. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8521; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 39. **PR** No Charge. **JE** 615, 212. **KW** Technical Inefficiency. Inefficiency Measurement. Allocative Inefficiency. Railroads.

AB Previous studies of stochastic production and cost frontiers have considered estimation of technical and allocative inefficiences. *In this paper we extend the idea of* technical inefficiency to a more disaggregate level, viz. inefficiency due to each variable input used by the firm. Techniques are developed to estimate these input-specific inefficiencies together with allocative inefficiency. Using panel data on United States class 1 railroads, inefficiency measured specific to different inputs are estimated. The degree of inefficiency and parameter estimates among different competing models are also compared.

Kupiec, Paul

PD October 1986. **TI** Mergers, Event Studies and Systematic Risk. **AU** Kupiec, Paul; Mathios, Alan. **AA** Kupiec: North Carolina State University. Mathios:

Federal Trade Commission. SR Federal Trade Commission Bureau of Economics Working Paper: 145; Federal Trade Commission, Bureau of Economics, Industry Analysis, 6th and Pennsylvania Avenue, Northwest, Washington, DC 20580 - Attention: Working Paper Coordinator. PG 55. PR No Charge. JE 612, 611. KW Mergers. Event Studies. Systematic Risk. Beta Risk. Market Power.

AB If the impact of new information alters a firm's risk characteristics, abnormal return measures derived from event tests are biased. This paper develops and tests a model of beta risk that indicates a firm's beta changes at the announcement of a merger with significant economic impacts. Merger-market-power hypotheses are evaluated, correcting for event-induced changes in risk, using the Stillman (1983) sample of horizontal mergers. The results confirm Stillman's original findings but demonstrate a conflict between a firm's measured abnormal returns and its merger-induced changes in risk characteristics - changes that are consistent with the monopoly power hypothesis.

Kuran, Timur

PD September 1985. TI Anticipated Inflation and Aggregate Employment: The Case of Costly Price Adjustment. AA Department of Economics, University of Southern California. SR University of Southern California Modelling-Research Group Working Paper: M8519; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 32. PR No Charge. JE 134, 023. KW Anticipated Inflation. Aggregate Employment. Price Adjustment.

AB Even if inflation is perfectly anticipated, a firm that finds nominal price adjustments sufficiently costly will reset its price at multi-period intervals. Consequently, its average output will change in a direction that depends on properties of its profit function. On the basis of this observation, which does not involve money illusion, the paper shows that anticipated inflation can stimulate aggregate employment through a process that entails changes in the factor demands of individual monopolistic firms and in the intersectoral allocation of consumer expenditure. Simulations indicate, however, that the gain in aggregate employment is likely to be modest.

PD October 1985. TI The Economic System in Contemporary Islamic Thought: Interpretation and Assessment. AA Department of Economics, University of Southern California. SR University of Southern California Modelling-Research Group Working Paper: M8526; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. PG 54. PR No Charge. JE 050, 030. KW Islamic Thought. Prohibition of Interest. Zakat.

AB The economic system envisaged by contemporary Islamic economists has three salient institutions: norms of Islamic brotherhood, zakat, and the prohibition of interest. Of these institutions, the norms are unlikely to enjoy widespread adherence in a large, heterogeneous society, where people invariably develop special loyalties that take precedence over their loyalties to the community at large. Zakat is essentially a redistribution scheme resembling those already in operation all over the world, except that it is less comprehensive and rather regressive. As for the prohibition of interest, it is likely to be violated, at least in spirit, because some people have considerably lower risk tolerance than others.

Kusnic, Michael W.

TI Ethnic Differences in Income in Peninsular Malaysia: Their Sensitivity to the Definition and Measurement of Income. AU DaVanzo, Julie; Kusnic, Michael.

PD September 1984. TI Accounting For Nonmarket Activities In The Distribution of Income: An Empirical Investigation. AU Kusnic, Michael W.; DaVanzo, Julie. AA Rand. SR Rand Paper: P-7070; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 30. PR No Charge. JE 225, 024. KW Inequality. Malaysia. Income Distribution.

AB It is frequently alleged that inequality is overstated when the nonmarket sector is ignored. This paper tests this proposition empirically, using detailed survey data from Malaysia. The authors find that when the definition of income is broadened to include the value of nonmarket activities, income levels rise, especially among the poor, and inequality falls. In these data, it is the average number of hours of work considered to produce "income," and not their distribution, that affects income inequality. This underscores the need for great caution in interpreting intercountry or intertemporal comparisons of inequality.

Kydland, Finn E.

TI Intertemporal Preferences and Labor Supply. AU Hotz, V. Joseph; Kydland, Finn E.; Sedlacek, Guilherme.

Labrune, Francis

TI Projecting the Demand for Electricity A Survey and Forecast. AU Mitchell, Bridger M.; Park, Rolla Edward; Labrune, Francis.

PD February 1986. TI Programmer's Guide To Modifications To The Regionalized Electricity Model. AU Labrune, Francis; Mitchell, Bridger M. AA Rand. SR Rand Note: N-2343-PSSP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. PG 35. PR No Charge. JE 212, 723, 132, 214. KW Electricity Demand Model. Energy Forecasts.

AB This Note summarizes Rand's corrections, changes, and additions to the user's-guide versions of the Baughman-Joskow Regionalized Electricity Model, which consists of econometrically estimated demand equations, engineering supply equations for least-cost generation and capacity expansion, and regulatory and financial parameters. It produces energy and peak-demand forecasts for the residential-commercial and industrial sectors at the level of nine electricity reliability regions based on user inputs and an endogenous (model-calculated) estimate of the price of electricity in each region. (See also R-3312-PSSP and R-3315-PSSP.).

Laffargue, Jean Pierre

PD July 1986. TI Taux de Salaire, Investissement et Emploi Dans une Economie Semi-Ouverte (Wages, Investment and Employment in a Semi-Open Economy).

AA CEPREMAP. **SR** CEPREMAP Discussion Paper: 8615; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 31. **PR** 20 FF. **JE** 411, 130, 023. **KW** Income Policy. Fiscal Policy. Unemployment. Investment Behavior.

AB This article starts from the well known model of an open economy with two sectors. The first produces a tradable commodity and the second nontradable goods. We add the assumption of price rigidities, and consider that the second sector faces an insufficient demand. A decrease of the real wage rate has three effects: 1) The first sector, which pulls the whole economy, has a higher growth rate; 2) Employment and output per units of capital increase; 3) The demand for the nontradable goods, and consequently its production, becomes stronger. If the second of these consequences dominates the third the trade balance improves. It deteriorates in the opposite situation. The function of fiscal policy is to correct the latter evolutions. (Paper in French).

Laffont, Jean Jacques

PD August 1985. **TI** The Dynamics of Incentive Contracts. **AU** Laffont, Jean Jacques; Tirole, Jean. **AA** Laffont: GREMAQ and CERAS, Universite de Toulouse. Tirole: M. I. T. **SR** University of Southern California Modelling-Research Group Working Paper: M8523; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 79. **PR** No Charge. **JE** 022, 026. **KW** Incentive Contracts. Two Period Principal/Agent Model.

AB The paper studies a simple two-period principal/agent model in which the principal updates the incentive scheme after observing the agent's first-period performance. The agent has superior information about his ability. The principal offers a first period incentive scheme and observes some measure of the agent's first-period performance (cost or profit), which depends on the agent's ability and (unobservable) first-period effort. The relationship is entirely run by short-term contracts. In the second-period the principal updates the incentive scheme and the agent is free to accept the new incentive scheme or quit. The strategies are required to be perfect and updating of the principal's beliefs about the agent's ability follows Bayes' rule.

Lal, Rajiv

PD July 1986. **TI** Loss-Leaders: A Phenomenon of Price Competition or Implicit Collusion. **AU** Lal, Rajiv; Matutes, Carmen. **AA** Lal: Stanford University. Matutes: INSEAD. **SR** Stanford Graduate School of Business Research Paper: 886; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 34. **PR** No Charge. **JE** 022, 611, 536. **KW** Loss Leaders. Pricing Strategy. Collusion. Price dispersion.

AB In this paper we analyze equilibrium pricing strategies for firms competing in a market for two goods consumed by two types of consumers. It is shown that if the proportion of poor to rich consumers is not too small or too large, equilibrium pricing strategies result in a kind of symmetric price dispersion which can be interpreted as the phenomenon of loss-leaders. It is also argued that although in some situations this equilibrium leads to a collusive solution, for other parameter values it can be a way out of a prisoner's dilemma. All other Nash equilibrium strategies are also characterized. The analysis is then extended to a multi-period setting to demonstrate that equilibrium pricing strategies can result in different types of temporal price dispersions which provide an explanation for the phenomenon of price promotions.

Lane, Sylvia

TI Economic and Sociodemographic Variables Affecting Nutritional Quality of Diets: A Review. **AU** Hihn, Jairus Michael; Lane, Sylvia.

Lanoie, Paul

PD September 9, 1986. **TI** Debt Capacity and LDC's Borrowing: A Critical Review. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 659; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 33. **PR** $2.50 Canada; $3.00 United States; $3.50 foreign. **JE** 440. **KW** Debt. Borrowing. Debt Capacity. LDC. Developing Countries. Risk Premium.

AB This paper will review an important part of the literature on debt capacity and LDC's borrowing. The pioneering theoretical work on the evolution of debt through time has provided principles of limited practical applicability for judging the sustainability of a particular debt situation. Having this limitation in mind, many researchers have tried, using an indicator approach, to identify empirically the circumstances under which countries have experienced debt-servicing problems. Building upon this work, some studies investigated the way in which a nation's probability of defaulting affects the funds suppliers' perception of the country's risk that is translated into a demand for a risk premium. These last two trends in the literature will be examined critically and further extensions will be suggested.

Laskar, Daniel

PD March 1986. **TI** The Balance of Payments Constraint in a Non Cooperative World. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8606; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 25. **PR** 20 FF. **JE** 311, 431. **KW** Balance of Payments Constraint. International Cooperation. Sterilisation. Monetary Policy.

AB We consider the strategic interdependence between monetary policies which is created by the balance of payments constraint in a two-country world under a fixed exchange rate system. While the previous literature on this issue mainly emphasised the harmful competitive struggle for surplus or deficits, we show that the type of international rules that in a non-cooperative setting may improve the system, depends on the relative importance of two factors: the degree of incompatibility of balance of payments targets, and the degree of dissimilarity of the shocks. Our analysis allows to give some justification to the frequent criticism of sterilisation monetary policies, and to consider the role of independent and "conservative" central bankers.

Lazear, Edward P.

PD April 1986. **TI** A Theory of Reinforcement and the Timing of Payments. **AA** University of Chicago. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-16; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 43. **PR** No Charge. **JE** 026, 315, 821. **KW** Information. Reinforcement. Labor Market Structure. Financial Market Structure.

AB The payoff structure of Las Vegas slot machines, the timing of evaluations and raises in the labor market, and the repayment structure of loans have many common elements. It is argued that frequent payments provide additional information to gamblers, workers, and lenders. These agents are willing to pay for the information. That rather obvious point yields a number of implications about the structure of labor and financial markets. The theory is essentially one of endogenous time preference and is akin to the psychologist's notions of reinforcement. There are, however, two important differences between the economic and psychological approach, which are discussed in the paper.

TI Comparable Worth and Discrimination in Labor Markets. **AU** Fischel, Daniel R.; Lazear, Edward P.

PD April 1986. **TI** Pay Equality and Industrial Politics. **AA** University of Chicago. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-12; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 28. **PR** No Charge. **JE** 821. **KW** Wage Compression. Pay Equality. Labor harmony.

AB Unions and personnel managers often argue that equitable pay treatment manifested as wage compression is useful because it reduces disharmony among workers. But it is far from obvious that a compressed salary structure is morale improving since better workers may feel disenchanted by this scheme. However, when workers' rewards are based on relative comparisons, salary compression reduces uncooperative behavior that is detrimental to the firm. Relative comparisions imply that some reference group must be selected as well. The major results are first, that equitable salaries are efficient and second, that it is always better to match rather than mix personality types within departments or firms. A major innovation is an efficiency argument for pay equality.

Leamer, Edward

PD September 1986. **TI** Cross Section Estimation of the Effects of Trade Barriers. **AA** Department of Economics, University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 417; Department of Economics, UCLA, Los Angeles, CA 90024. **PR** $2.50. **JE** 422, 421. **KW** Tariffs. Trade Barriers.

AB Most analyses of trade patterns have been done either on a country-by-country basis using the industry as the unit of observation or on a commodity-by-commodity basis using the country as the unit of observation. The estimation of the effects of trade barriers seems most naturally done for each commodity separately on the implicit assumption that the effect of a barrier on trade of a commodity in one country is likely to be similar to the effect of a similar barrier on a similar commodity in a different country. Pooling across commodities, on the other hand, seems to require the doubtful assumption that similar barriers applied *to different commodities* will have similar effects. Data sets, however, are usually very brief in terms of countries but very extensive in terms of commodities. These data therefore force us to pool across commodities. A carefully formulated theory ought to serve as a foundation for the pooling of data across commodities. A central message of this paper is that both the even and the uneven general equilibrium trade models tend to discourage the pooling of data across commodities. Nonetheless, an example of a simple cross commodity study of the effects of tariffs is presented. The discovery of a negative relationship between barriers and trade performance increases concerns about the importance of the reverse relationship that trade barriers are put in place in response to undesirable trade performance.

Leibowitz, Arleen

PD September 1985. **TI** The Effect of Cost Sharing on the Use of Medical Services by Children - Interim Results from a Randomized Controlled Trial. **AU** Leibowitz, Arleen; Manning, Willard G. Jr; Keeler, Emmett B.; Duan, Naihua; Lohr, Kathleen N.; Newhouse, Joseph P. **AA** Rand. **SR** Rand Report: R-3287-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 40. **PR** No Charge. **JE** 913. **KW** Cost Sharing. Medical Services. Children. Coinsurance. Outpatient Services.

AB This report, a shorter version of which appeared in the May 1985 issue of 'Pediatrics, considers how cost sharing affects the use of medical care by children under age 14. The authors draw upon data collected during the Rand Health Insurance Experiment to examine total expenditures on medical care and hospital and outpatient use, particularly the use of preventive services. Results indicate that per capita use of medical services was one-third greater for children whose families were assigned to a health plan that reimbursed them completely for medical services than for children whose families paid 95 percent of medical expenses. Outpatient services decreased as cost sharing rose for a variety of measures: the probability of seeing a doctor during the year, total annual expenditures, number of visits per year. These results imply that reducing the amount of cost sharing for pediatric care will lead to substantial increases in outpatient use. However, reducing coinsurance for children's hospital expenses can be expected to have little impact on total costs of medical care.

TI A Controlled Trial of the Effect of a Prepaid Group Practice on the Utilisation of Medical Services. **AU** Manning, Willard G.; Leibowitz, Arleen; Goldberg, George A.; Rogers, William H.; Newhouse, Joseph P.

PD October 1985. **TI** The Demand For Prescription Drugs As A Function of Cost-Sharing. **AU** Leibowitz, Arleen; Manning, Willard G.; Newhouse, Joseph P. **AA** Rand. **SR** Rand Note: N-2278-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 28. **PR** No Charge. **JE** 913, 911. **KW** Prescription Drugs. Coinsurance Rate. Cost Sharing.

AB This Note estimates how the use of drugs varies when insurance plans alter the coinsurance rate of drugs and other medical services. Data for the analysis are derived from the Rand Health Insurance Experiment, a randomised trial designed to determine the effect of cost-sharing on the demand for health services and on the health status of individuals. Participants in the experiment were randomly assigned to insurance plans with varying coinsurance rates and deductibles. Data from four sites are used to estimate how drug expenditures vary by insurance plan. Findings show that individuals with generous insurance buy more drugs. The percentage reduction in use caused by cost-sharing was similar for drugs and other medical care use. Reduced numbers and prescriptions purchased, rather than lower cost prescriptions or use of generic drugs accounted for most of the effect.

Leonard, Jonathan S.

PD July 1986. **TI** In The Wrong Place at the Wrong Time: The Extent of Frictional and Structural Unemployment. **AA** University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 1979; National Bureau of Economic Research 1050 Massachusetts Avenue Cambridge MA 02138. **PR** $2.00. **JE** 820, 225. **KW** Structural Unemployment. Frictional Unemployment.

AB A major cause of unemployment, distinct from inadequate aggregate demand and instability of workers, is the instability of jobs themselves. In an average year about one in every nine jobs disappear and one in every eight is newly created. This is based on an analysis of year to year employment changes among the private employers of Wisconsin between 1977 and 1982. This job loss may account for roughly 2.2 percentage points, or one quarter, of the average unemployment rate. As much as half of the transitions of workers from employment to non-employment may be accounted for by the destruction of jobs. Establishments appear to adjust their employment quickly, largely within one year. Employment growth rates one year apart are negatively correlated, and thereafter nearly follow a random walk. Establishments exhibit considerable heterogeneity in employment growth rates, with some positive cyclical variations, but little industry effect. Employment shifts across establishments within an industry are of far greater magnitude than shifts across industry lines.

Levine, David K.

PD October 1986. **TI** Infinite Horizon Equilibrium with Incomplete Markets. **AA** Department of Economics, University of California at Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 418; Department of Economics, UCLA, Los Angeles, CA 90024. **PG** 27. **PR** $2.50. **JE** 021. **KW** General Equilibrium. Dynamic Markets. Incomplete Markets. Infinite Horizon.

AB Infinite-horizon equilibria in a production economy are characterised as limits of truncated finite-horizon equilibria in which terminal values satisfying a transversality condition, are assigned to final asset stocks, and current budget constraints limit the possibility of trading into positions which cannot be sustained in the future.

Levine, Paul

PD April 1986. **TI** The Sustainability of Optimal Cooperative Macroeconomic Policies in a Two-Country World. **AU** Levine, Paul; Currie, David. **AA** Levine: CEF, London. Currie: NIESR, London. **SR** Centre for Economic Policy Research Discussion Paper: 102; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 41. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 023, 400, 423, 026. **KW** Cooperative rules. Sustainability. Macroeconomic Policy. Nash Equilibria. Time Consistency. Repeated Games. Reputation Effects.

AB The paper investigates the sustainability of cooperative rules for the conduct of macroeconomic policy in a two-country world. The problem is set out as a supergame in which the threat strategy is to switch to a Nash non-cooperative equilibrium. A number of possible non-cooperative equilibria are reviewed, and two are analysed in detail as possible threat strategies. The first is an open-loop Nash equilibrium where the government is able to precommit itself to the policies it announces. This policy is time inconsistent so we discuss an alternative threat, a time-consistent closed-loop Nash equilibrium. Similarly time inconsistent and time consistent forms of cooperative equilibria are examined. We apply these solution concepts to a small two-country model with in which we impose parameter values. We discover that the presence of stochastic disturbances in the model enables the fully optimal (and time-inconsistent) cooperative policy to be sustainable. The optimal policy is sustainable not only when both governments can renege on the policies they announce to the private sector, and a reneging of one, but also when one government reneges on the other.

Levy, Dominique

TI Desequilibre et Stationarite (Disequilibrium and Stationarity). **AU** Dumenil, Gerard; Levy, Dominique.

TI La Dynamique du Capital. I.-L'Equilibre Classique (The Dynamics of Capital. I.-Classical Equilibrium). **AU** Dumenil, Gerard; Levy, Dominique.

TI La Dynamique du Capital. II.-Les Desequilibres Stationnaires et la Crise (The Dynamics of Capital. II-Stationary Disequilibria and Crisis). **AU** Dumenil, Gerard; Levy, Dominique.

Lewis, Karen K.

PD September 1986. **TI** The Implications of Stochastic Policy Process for the "Peso Problem" in Flexible Exchange Rates and Other Prices. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 396; Salomon Brothers Center, Graduate School of Business Administration, New York University, 100 Trinity Place, New York, NY 10006. **PG** 50. **PR** $3.00. **JE** 132, 431. **KW** "Peso Problem". Forecasts. Exchange Rates. Stochastic Policy Process.

AB The "peso problem," the market's belief that a discrete event may occur, has frequently been blamed for the persistence of on-average mistaken forecasts of macroeconomic variables. This paper demonstrates how beliefs that a policy process may have switched can induce ex post biased forecasts of exchange rates even after the switch has occurred. The persistence in mistaken forecasts depends upon properties of the policy process distributions under the old and new regime. Furthermore, this paper demonstrates that during this "peso problem" period, exchange rates will systematically deviate from the exchange rate implied by observing the correct set of fundamentals ex post and may therefore appear to contain a speculative bubble component. Finally, during this period, the conditional variance of exchange rates will exceed the variance implied by observing fundamentals.

Lichtenberg, Frank R.

PD June 1986. **TI** Errors of Measurement of Output Deflators. **AU** Lichtenberg, Frank R.; Griliches, Zvi. **AA** Lichtenberg: Graduate School of Business, Columbia University. Griliches: Harvard University and National Bureau of Economic Research. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-24; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 26. **PR** $5.00 academics and non-profit institutions; $6.00 corporations (add $1.00 outside United States, Canada and Puerto Rico). **JE** 220. **KW** Price Measurement. Quality Change. Productivity. Multiple Indicators.

AB In this paper we investigate the incidence of measurement errors in two independent estimates of long-term price change, within the framework of "multiple indicators" models of price measurement. We develop estimates of the measurement-error variances associated with both the Producer Price Index (PPI) and the Census Unit Value Relative (UVR). Our estimates provide support for the generally accepted view that the PPI is a far more reliable indicator of long-term price change: the estimated signal-to-noise ratios for the PPI and UVR are 2.72 and 0.53, respectively. Our estimates should be useful for both constructing an optimal indicator of price change, and for identifying econometric models including error-ridden priceout or output-growth terms as regressors. Our analysis suggests that "scores" assigned to product deflators provide useful information about their reliability. By extending our model to explicitly incorporate productout quality change, we are able to assess the importance of the problem posed by quality change for price and productivity measurement. Less than half of quality change, which we estimate to occur at an average annual rate of 1.3 percent, appears to be adjusted for in the PPI. Consequently, estimates of productivity growth based on the PPI underestimate "quality-adjusted" productivity growth by an estimated 43 percent.

PD June 1986. **TI** Private Investment in R&D to Signal Ability to Perform Government Contracts. **AA** Graduate School of Business, Columbia University, and National Bureau of Economic Research. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-25; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 43. **PR** $5.00 academics and non-profit institutions; $6.00 corporations (add $1.00 outside United States, Canada and Puerto Rico). **JE** 621, 114. **KW** R&D. Research and Development. Technological Change. Federal Contracting. Signaling. Defense Spending.

AB Official government statistics on the "mission-distribution" of United States R&D investment are based on the assumption that only the government sponsors military R&D. In this paper we advance and test the alternative hypothesis, that a significant share of privately-financed industrial R&D is military in orientation. We argue that in addition to (prior to) contracting with firms to perform military R&D, the government deliberately encourages firms to sponsor defense research at their own expense, to enable the government to identify the firms most capable of performing certain government contracts, particularly those for major weapons systems. To test the hypothesis of, and estimate the quantity of, private investment in 'signaling' R&D, we estimate variants of a model of company R&D expenditure on longitudinal, firm-level data, including detailed data on federal contracts. Our estimates imply that about 30 percent of United States private industrial R&D expenditure in 1984 was procurement- (largely defense-) related, and that almost half of the increase in private R&D between 1979 and 1984 was stimulated by the increase in Federal demand.

PD July 1986. **TI** Private Investment in R&D to Signal Ability to Perform Government Contracts. **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 1974; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA, 02138. **PR** $2.00. **JE** 621, 522, 322, 114. **KW** Private Investment. R&D. Government Contracts. Signaling.

AB Official government statistics on the "mission-distribution" of United States R&D investment are based on the assumption that only the government sponsors military R&D. In this paper we advance and test the alternative hypothesis, that a significant share of privately-financed industrial R&D is military in orientation. We argue that in addition to (prior to) contracting with firms to perform military R&D, the government deliberately encourages firms to sponsor defense research at their own expense, to enable the government to identify the firms most capable of performing certain government contracts, particularly those for major weapons systems. To test the hypothesis of, and estimate the quantity of, private investment in 'signaling' R&D, we estimate variants of a model of company R&D expenditure on longitudinal, firm-level data, including detailed data on federal contracts. Our estimates imply that about 30 percent of United States private industrial R&D expenditure in 1984 was procurement- (largely defense-) related, and that almost half of the increase in private R&D between 1979 and 1984 was stimulated by the increase in Federal demand.

PD August 1986. **TI** Errors of Measurement in Output Deflators. **AU** Lichtenberg, Frank R.; Griliches, Zvi. **AA** Lichtenberg: Columbia University. Griliches: Harvard University. **SR** National Bureau of Economic Research Working Paper: 2000; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 220,227. **KW** Measurement Errors. Output Deflators. Producer

Price Index. Product Quality Change.
AB In this paper we investigate the incidence of measurement errors in two independent estimates of long-term price change, within the framework of "multiple indicators" models of price measurement. We develop estimates of the measurement-error variances associated with both the Producer Price Index (PPI) and the Census Unit Value Relative (UVR). Our estimates provide support for the generally accepted view that the PPI is a far more reliable indicator of long-term price change: the estimated signal-to-noise ratios for the PPI and UVR are 2.72 and 0.53, respectively. Our estimates should be useful for both constructing an optimal indicator of price change, and for identifying econometric models including error-ridden price- or output-growth terms as regressors. Our analysis suggests that "scores" assigned to product deflators provide useful information about their reliability. By extending our model to explicitly incorporate product-quality change, we are able to assess the importance of the problem posed by quality change for price and productivity measurement. Less than half of quality change, which we estimate to occur at an average annual rate of 1.3 percent, appears to be adjusted for in the PPI. Consequently, estimates of productivity growth based on the PPI underestimate "quality-adjusted" productivity growth by an estimated 43 percent.

Lillard, Lee A.

PD January 1986. **TI** Local Labor Market Cycles and Their Consequences: Wages, Hours of Work, and Employment. **AA** Rand. **SR** Rand Note: N-2276-DOL; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 65. **PR** No Charge. **JE** 824, 941, 131, 826. **KW** Labor Market Cycles. Wages. Employment. State Labor Markets.
AB This Note presents an analysis of state labor market cycles as represented by the annual average monthly unemployment rate. It discusses the implications both of long-run differences in the level and amplitude of the state cycles and of short-run cyclic variation for the annual incidence and duration of unemployment and for wages and hours of work. The study's findings indicate that the employment environment is not stable. There is enormous variation across areas within the economy at any given time, and the situation in any particular area may change dramatically over time. The degree to which it changes and the environment in which the worker is placed are significantly different in different areas.

PD March 1986. **TI** Private Sector Training Who Gets It And What Are Its Effects? **AU** Lillard, Lee A.; Tan, Hong W. **AA** Rand. **SR** Rand Report: R-3331-DOL/RC; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 96. **PR** No Charge. **JE** 811, 912. **KW** Private Sector Training. Jobtraining.
AB This report considers several issues regarding recipients of post-school job training, the extent of such training and the reasons for it, and how it affects subsequent earnings and employment. It draws on measures of reported training from the Current Population Survey, three cohorts from the National Longitudinal Surveys, and the Employment Opportunities Pilot Projects Survey. Its principal findings are (1) the probability of training rises with schooling and the industry rate of technical change; (2) non-whites and women appear to receive less training than white males; (3) rapid technical change is associated with increased training from company sources, and with managerial, professional and technical types of training; and (4) these kinds of training have the largest effects on increasing earnings and reducing the likelihood of future unemployment.

Lindbeck, Assar

PD June 1986. **TI** Union Activity and Economic Resilience. **AU** Lindbeck, Assar; Snower, Dennis J. **AA** Lindbeck: University of Stockholm. Snower: Birbeck College, University of London. **SR** Centre for Economic Policy Research Discussion Paper: 114; 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** 831, 023, 131, 824. **KW** Labor Unions. Union Activity. Unemployment. Wage-Unemployment Movements. Economic Resilience. Insider-Outsider Analysis.
AB The paper analyses how the influence of labour unions over wage contracts may make an economy less "resilient". Loss of resilience is depicted in two conceptually independent ways: (i) the tendency of exogenous variations in unemployment to become perpetuated and (ii) the possibility that such swings may give rise to a wage-unemployment ratchet. In this manner, the analysis attempts to provide an explanation of why unemployment rates in Europe and the United States have displayed an upward trend over the past fifteen years and why the United States recovered much more speedily from the recession of the early 1980s than did most European economies.

Lindsey, R.

TI Departure Time and Route Choice for Routes in Parallel. **AU** Arnott, R.; de Palma, A.; Lindsey, R.

Lisowski, William

PD March 1985. **TI** A Critical Look At Military Recruitment And Retention Policies. **AA** Rand. **SR** Rand Paper: P-7061; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 53. **PR** No Charge. **JE** 114, 824. **KW** Enlistment. Military Enlistment. Retention.
AB This paper provides a framework for analyzing military enlistment and reenlistment policies and incentives, looking beyond simple enlistee counts to measures which include the effects of differential retention, productivity, and costs. The methodologies used provide a common basis by which disparate measures -- increases in enlistments under a set of incentives, bonus elasticities for reenlistments, etc. -- can be compared. The statistical nature of these techniques, which are based on the retention function, recognizes the randomness in the attrition and reenlistment behavior of individual enlistees. The methodology is applicable to other fields, such as teaching and occupations requiring lengthy training and/or apprenticeship, where entry is usually only at the most junior level.

Lohr, Kathleen N.

TI The Effect of Cost Sharing on the Use of Medical Services by Children - Interim Results from a Randomised Controlled Trial. **AU** Leibowitz, Arleen; Manning, Willard G. Jr; Keeler, Emmett B.; Duan, Naihua; Lohr, Kathleen N.; Newhouse, Joseph P.

Loopesko, Bonnie E.

TI The Yen-Dollar Relationship: A Recent Historical Perspective. **AU** Johnson, Manuel H.; Loopesko, Bonnie E.

Lott, John R. Jr

PD October 1986. **TI** Should the Wealthy be Able to "Buy Justice"? **AA** Montana State University; National Fellow, Hoover Institution, Stanford University. **SR** Stanford Hoover Institution Working Papers in Economics: E-86-61; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 20. **PR** No Charge. **JE** 916. **KW** Optimal Penalties. Conviction Probabilities. Trials.

AB This note shows that allowing wealthy individuals to influence the outcome of their trials through the purchase of legal services can be consistent with the optimal penalty literature. As a corollary to this result I show why the public provision of prosecutorial services can be efficient. Finally, using this discussion, I review some of the advantages and disadvantages of varying the length of jail terms versus varying the probabilities of conviction.

PD October 1986. **TI** Attendance Rates, Political Shirking, and the Effect of Post-Elective Office Employment. **AA** Montana State University; National Fellow, Hoover Institution, Stanford University. **SR** Stanford Hoover Institution Working Paper in Economics: E-86-60; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 26. **PR** No Charge. **JE** 010. **KW** Shirking. Last Period Problem. Politicians.

AB Most economists agree that opportunistic behavior by politicians is limited by the threat of re-election. By implication, the level of shirking should be greatest when a politician decides to leave office. This paper seeks to learn whether shirking can be reduced when opportunities exist for political parties and/or constituencies to affect a shirking politician's post-elective career or that of his children.

Lovasz, Laszlo

TI The Intersection of Matroids and Antimatroids. **AU** Korte, Bernhard; Lovasz, Laszlo.

Love, H. Alan

TI Macroeconomic Linkages, Taxes, and Subsidies in the United States Agricultural Sector. **AU** Rausser, Gordon C.; Chalfant, James A.; Love, H. Alan; Stamoulis, Kostas G.

Love, James P.

TI Dollar Appreciation and Manufacturing Employment and Output. **AU** Branson, William H.; Love, James P.

Lucas, Robert E. Jr

PD August 1986. **TI** On the Mechanics of Economic Development. **AA** The University of Chicago. **SR** Queen's Institute for Economic Research Discussion Paper: 657; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 58. **PR** $2.50 Canada; $3.00 United States; $3.50 foreign. **JE** 110, 023. **KW** Development. Growth.

AB I will begin with an application of a now-standard neoclassical model to the study of twentieth century United States growth, closely following the work of Robert Solow, Edward Denison and many others. I will then ask, somewhat unfairly, whether this model as it stands is an adequate model of economic development, concluding that it is not. Next, I will consider two adaptations of this standard model to include the effects of human capital accumulation. The first retains the one-sector character of the original model, and focuses on the interaction of physical and human capital accumulation. The second examines a many-good system that admits specialized human capital of many different kinds and offers interesting possibilities for the interaction of trade and development. Finally, I will turn to a discussion of what has been arrived at and of what is yet to be done.

Luft, Harold S.

TI Research Plan For The Preferred Provider Organisation Study. **AU** Ginsberg, Paul B.; Hosek, Susan D.; Duan, Naihua; Luft, Harold S.; Marquis, Susan; Turner, Joan B.

TI Research Plan For The Preferred Provider Organisation Study. **AU** Ginsberg, Paul B.; Hosek, Susan D.; Duan, Naihua; Luft, Harold S.; Marquis, Susan; Turner, Joan B.

Maccoby, Michael

TI The Organisational Implications of New Technologies: Remote Work Centers at A.T.&T. Communications. **AU** MacDuffie, John Paul; Maccoby, Michael.

MacDonald, Glenn M.

PD June 1986. **TI** An Operational Theory of Monopoly Union-Competitive Firm Interaction. **AU** MacDonald, Glenn; Robinson, Chris. **AA** University of Western Ontario. **SR** University of Rochester Center for Economic Research Working Paper: 47; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 41. **PR** No Charge. **JE** 831, 833. **KW** Unions. Wage Differentials.

AB In recent years there has been an increased interest in the study of labor unions in the labor economics literature. Unfortunately this work has suffered from two shortcomings. First, the work has been highly fragmented with no unified model of unions emerging. Second, very few testable propositions have been established. In this paper, we make some headway in remedying these deficiencies. We develop an equilibrium model of the interaction of workers, firms, consumers and a union. The essential departure of this model from previous work is that unions are assumed to use resources in their dealings with firms and workers. Thus it may not be optimal for all firms in an industry to be unionized. The existence of incomplete coverage in an industry enables us to generate a sharp set of predictions and suggests empirically refutable tests of the model.

PD August 1986. **TI** Job Mobility in Market Equilibrium. **AA** University of Western Ontario. Economics Research Center/NORC. Rochester Center for Economic Research. **SR** University of Rochester Center for Economic Research Working Paper: 51; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 44. **PR** No Charge. **JE** 823, 824. **KW** Job Mobility. Quit Probability.
AB This paper expands and unifies the set of hypotheses implied by stochastic mobility models. A simple model is constructed, and a variety of hypotheses are derived. The propositions refer to the probability with which an investigator, having access to various sets of conditioning variables, would observe a quit. The relation between quit probability and wages, experience, tenure on current job, and past mobility experience is given a complete characterisation.

MacDuffie, John Paul

PD September 1986. **TI** The Organizational Implications of New Technologies: Remote Work Centers at A.T.&T. Communications. **AU** MacDuffie, John Paul; Maccoby, Michael. **AA** Harvard University, John F. Kennedy School of Government. **SR** Harvard John F. Kennedy School of Government Discussion Paper: 154D; John F. Kennedy School of Government, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138. **PG** 31. **PR** No Charge. **JE** 621, 026, 635. **KW** Information Technology. Technology Development. Telecommunications. Implementation. Human Resource Management. Automation.
AB The paper provides a detailed analysis of the introduction of centralised, automated maintenance centers for the long-distance network of electronic switches at AT&T Communications. These centers, called Remote Work Centers (RWC), represent profound technological and organisational changes in the way the long-distance network is maintained. RWC's were first introduced as pilot projects in three regions. Each region began with the same technology, the same organisational structure, the same general procedures, but after two years, each had experienced dramatically different outcomes. The RWC case highlights the problems that arise when the critical role of people in achieving the full benefits of new technology is neglected. The implications of the RWC case are then considered. Three stages of technology development -- conceptual, design, and implementation -- are discussed, with an examination of possible choices at each stage and the consequences of those choices. A distinction is made between "operational tasks" and "managerial tasks", and the design issues related to automating these different tasks are explored. Finally, an alternate model of technology development, which views technology as a tool to support and extend human capabilities, is described.

MacKay, Robert J.

PD January 1986. **TI** The FTC Budget Process: Zero-Base Budgeting by Committee. **AA** Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-2; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 45. **PR** No Charge. **JE** 025, 511. **KW** Federal Trade Commission. Budgetary Process. Voting.
AB From 1977 until 1983, a unique voting scheme -- point voting applied on an incremental basis -- was used by the Federal Trade Commission for determining its collective priorities during the annual budgetary process. This paper examines the logic and properties of this decision-making procedure and highlights its advantages and disadvantages relative to alternative procedures. Two analytical perspectives are utilized. First, the procedure is examined under the assumption that all participants behave in a sincere fashion, truthfully reporting their budgetary priorities. Second, the procedure is examined at a strategically deeper level by considering the incentives for participants to vote in a sophisticated fashion so as to bias budgetary outcomes toward their own conception of the "public interest." In each case, the likely influence of this procedure on final budgetary outcomes is considered.

Macleod, W. Bentley

PD August 1986. **TI** Involuntary Unemployment in Dynamic Contract Equilibria. **AU** Macleod, W. Bentley; Malcomson, James M. **AA** Macleod: Queen's University. Malcomson: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8614; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 10. **PR** No Charge. **JE** 821, 825. **KW** Performance Measurement. Voluntary Unemployment. Involuntary Unemployment.
AB Lucas (1981) has questioned whether it is possible, even in principle, to distinguish voluntary from involuntary unemployment as long as individuals are free to choose their own actions. Certainly, in models of perfect competition with complete information contracts can always be designed to avoid involuntary unemployment. We argue here that this is not so when the contracts that are legally enforceable are limited by the practical difficulty of finding measures of employee performance that can be be verified in court.

PD August 12, 1986. **TI** Involuntary Unemployment in Dynamic Contract Equilibria. **AU** MacLeod, W. Bentley; Malcomson, James M. **AA** MacLeod: Queen's University. Malcomson: University of Southamptom. **SR** Queen's Institute for Economic Research Discussion Paper: 656; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 11. **PR** $2.50 Canada; $3.00 United States; $3.50 foreign. **JE** 821. **KW** Unemployment. Contracts.
AB In this paper the set of bilateral wage contracts in a dynamic model with unobservable effort is characterized. Our first result is to demonstrate that bond payments and severance pay do not increase the size of the set of incentive compatible contracts. Secondly, we show that unobservable effort can lead to involuntary unemployment.

Magill, Michael J. P.

PD June 1985. **TI** Allocation of Aggregate and Individual Risks through Financial Markets. **AU** Magill, Michael J. P.; Shafer, Wayne J. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8510; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 39. **PR** No Charge. **JE** 021, 020. **KW** Risk. Financial Markets. Futures Markets. Information Structure.

AB We present a canonical pure exchange model of an economy with aggregate and individual risks. We show that the economy always has a basic contingent commodity equilibrium in which prices depend only on aggregate risks. We introduce an information structure and a number which expresses the maximum rate at which information is revealed in any time period (the branching number). We show that if the information structure associated with the aggregate risks is such that the branching number is not greater than the number of trading opportunities in futures (the number of commodities) then generically each basic contingent commodity equilibrium allocation can be achieved as an equilibrium allocation on a system of spot and futures markets for the underlying commodities and insurance markets for the individual risks.

Magnus, Jan R.

PD January 1985. **TI** Matrix Differential Calculus and Static Optimisation Part II Differentials: Theory. **AU** Magnus, J. R.; Neudecker, H. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 2/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 139. **PR** No Charge. **JE** 213. **KW** First And Second Differential. Matrix Functions. Jacobian And Hessian Matrices. Lagrange Multiplier Matrix.

AB The text is part of a monograph. It discusses differentials and extremum problems.

PD January 1985. **TI** Symmetry, 0-1 Matrices and Jacobians: A Review. **AU** Magnus, J. R.; Neudecker, H. **AA** Magnus: London School of Economics. Neudecker: University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 1/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 46. **PR** No Charge. **JE** 213, 211. **KW** Kronecker Product. Vec Operator. Commutation And Duplication Matrix.

AB The purpose of the paper is to bring together those properties of the (simple) Kronecker product, the vec operator, and 0-1 matrices (commutation matrix, duplication matrix) that are thought to be of interest to researchers and students in econometrics and statistics. The treatment of Kronecker products and vec operators is fairly exhaustive; the treatment of 0-1 matrices is (deliberately) selective.

TI Consistent Maximum Likelihood Estimation with Dependent Observation The General (Non-Normal) Case and the Normal Case. **AU** Heijmans, Risto D. H.; Magnus, Jan R.

TI On the First-Order Efficiency and Asymptotic Normality of the Maximum Likelihood Estimator Obtained from Dependent Observations. **AU** Heijmans, Risto D. H.; Magnus, Jan R.

TI The Exact Multiperiod Mean-Square Forecast Error for the First-Order Autoregressive Model. **AU** Hoque, Asraul; Magnus, Jan R.; Pesaran, Bahram.

Malcomson, James M.

PD 1986. **TI** Tax Push Inflation In A Unionised Labour Market. **AU** Malcomson, James M.; Sartor, Nicola. **AA** Malcomson: University of Southampton. Sartor: Bank of Italy. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8615; Department of Economics, University of Southampton, Southampton 509 5NH, ENGLAND. **PG** 28. **PR** No Charge. **JE** 821, 831, 323. **KW** Direct Taxes. Wages, Unionized Labor Market. Tax Push Inflation.

AB In this paper the effect of changes in the average rate and in the progressivity of direct taxes on (a) the level of wages and (b) the extent to which cost-of-living increases are transmitted to wages are considered for a unionised labour market. These effects are derived theoretically for different union objectives and the models applied to data for Italian industry in a form which allows discrimination between these different objectives. The empirical estimates for the preferred model are then used to determine the effects of the postulated tax changes.

TI Involuntary Unemployment in Dynamic Contract Equilibria. **AU** Macleod, W. Bentley; Malcomson, James M.

TI Involuntary Unemployment in Dynamic Contract Equilibria. **AU** MacLeod, W. Bentley; Malcomson, James M.

Mankin, N. Gregory

PD August 1986. **TI** Consumer Spending and the After-Tax Real Interest Rate. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 1991; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 921. **KW** Consumer Spending. Real interest Rate. User Cost Effect. Consumer Durable Goods.

AB This paper examines the interaction between consumer durable goods and consumer non-durable goods in determining the responsiveness of total expenditure to the after-tax real interest rate. The introduction of consumer durables into the consumer's decision problem can have important effects on the interest elasticity of total spending. The channel highlighted here might be called the "user cost effect," in that the after-tax interest rate enters the implicit user cost of consumer durable goods. Even if a consumer has a one-period planning horison, possibly because of a binding borrowing constraint, the user cost effect may nonetheless make his spending highly interest sensitive. Finally, the paper examines the response of the level and composition of consumer spending to the high real interest rates experienced in the early 1980s.

Manning, Willard G.

PD September 1985. **TI** A Controlled Trial of the Effect of a Prepaid Group Practice on the Utilisation of

Medical Services. **AU** Manning, Willard G.; Leibowitz, Arleen; Goldberg, George A.; Rogers, William H.; Newhouse, Joseph P. **AA** Rand. **SR** Rand Report: R-3029-HHS; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 39. **PR** No Charge. **JE** 913. **KW** Fee-For-Service. Hospitalisation. Group Health Cooperative.

AB Does a prepaid group practice deliver less care than the fee-for-service system when both serve comparable populations with comparable benefits? To answer this question, the authors randomly assigned a group of 1580 persons to receive care free of charge either from a fee-for-service physician of their choice (431 persons) or at the Group Health Cooperative (GHC) of Puget Sound (1149 persons). Another 733 persons who shared in the cost of their fee-for-service care, but were otherwise comparable to the first two groups, were studied to observe the effects of cost sharing. The rate of hospital admissions for both groups at GHC was about 40 percent less than in the free-care fee-for-service group ($p < 0.01$), although ambulatory visit rates were similar. The calculated expenditure rate for all services was about 25 percent less in the two GHC groups when compared with the free-care fee-for-service group ($p < 0.01$ for the experimental group, $p < 0.05$ for the control group). Preventive visits were higher in the prepaid groups, but cannot explain the reduced hospitalisation. The similarity of utilisation between the two prepaid groups implies that the mix of health risks at GHC was similar to that in the fee-for-service system. The lower rate of use observed at GHC, along with comparable reductions found in noncontrolled studies by others, suggests that the style of medicine at prepaid group practices is markedly less hospital intensive and consequently less expensive.

TI The Effect of Cost Sharing on the Use of Medical Services by Children - Interim Results from a Randomised Controlled Trial. **AU** Leibowitz, Arleen; Manning, Willard G. Jr; Keeler, Emmett B.; Duan, Naihua; Lohr, Kathleen N.; Newhouse, Joseph P.

TI The Impact of Cost Sharing On Emergency Department Use. **AU** OGrady, Kevin F.; Manning, Willard G.; Newhouse, Joseph; Brook, Robert H.

TI The Demand For Prescription Drugs As A Function of Cost-Sharing. **AU** Leibowitz, Arleen; Manning, Willard G.; Newhouse, Joseph P.

Mansur, Ahsan S.

TI A Review of the Fiscal Impulse Measure. **AU** Heller, Peter S.; Haas, Richard D.; Mansur, Ahsan S.

Marcet, Albert

PD July 1986. **TI** Convergence of Least Squares Learning Mechanisms in Self Referencial Linear Stochastic Models. **AU** Marcet, Albert; Sargent, Thomas J. **AA** Marcet: Carnegie-Mellon University. Sargent: University of Minnesota. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-33; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 37. **PR** No Charge. **JE** 026. **KW** Adaptive Expectations. Learning Mechanisms. Rational Expectations.

AB Ten years ago, Benjamin Friedman wrote a working paper entitled "Adaptive Expectations are Rational After All." Our paper could be entitled the same, except that we use "adaptive" in the control theorist's sense (and not the macroeconomist's).

Marcus, Alan J.

TI The Valuation of Security Analysis. **AU** Kane, Alex; Marcus, Alan J.

Markusen, James R.

PD July 1986. **TI** Trade Policy with Increasing Returns and Imperfect Competition; Contradictory Results from Competing Assumptions. **AU** Markusen, James R.; Venables, Anthony J. **AA** Markusen: Department of Economics, University of Western Ontario. Venables: School of Social Sciences. **SR** Centre for Economic Policy Research Discussion Paper: 120; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 41. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 611, 420, 411. **KW** Trade Policy. Industrial Policy. Segmented Versus Integrated Markets. Obligopoly Versus Free Entry.

AB A number of recent papers reach different conclusions concerning the effects of trade and industrial policy on imperfectly competitive industries; the implications for policy are therefore sensitive to assumptions concerning both firm behaviour and market structure. This paper sets out a single model within which policy can be examined under a variety of assumptions concerning market structures. The results obtained from this model can be compared to results already obtained in the literature, and the model allows further analysis of some interesting cases. We consider the four types of market structure generated by oligopoly versus free entry, and segmented markets versus integrated markets. By employing simple functional forms we are able to make direct comparisons between these cases. We conclude that the effects of trade and industrial policies are greater when markets are segmented than when they are integrated, and that, if transport costs are small, policy is more potent when the number of firms is fixed than when there is free entry.

Marquis, Susan

PD July 1985. **TI** Demand for Supplementary Health Insurance. **AU** Marquis, M. Susan; Phelps, Charles E. **AA** Rand. **SR** Rand Report: R-3285-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 44. **PR** No Charge. **JE** 913, 323. **KW** Supplementary Health Insurance. Patient Cost Sharing.

AB Many current proposals aimed at encouraging competition in the health sector call for changes in the way employer-paid health insurance premiums are treated for tax purposes, and for a multiple choice of health insurance plans. This report presents an empirical analysis of the demand for supplementary health insurance and examines the potential effects of implementing these proposals. Extensive demand for supplementary insurance may dampen the effectiveness of catastrophic or major risk insurance proposals intended to increase patient cost sharing; the analysis provides estimates of the size of this demand.

TI Research Plan For The Preferred Provider Organization Study. AU Ginsberg, Paul B.; Hosek, Susan D.; Duan, Naihua; Luft, Harold S.; Marquis, Susan; Turner, Joan B.

Marron, J. S.

TI How Far Are Automatically Chosen Regression Smoothing Parameters from Their Optimum? AU Hardle, Wolfgang; Hall, Peter; Marron, J. S.

Martinez, Giralt Xavier

PD March 1986. TI Price Competition in a Non-Homogeneous Space. AU Martinez, Giralt Xavier; Garella, Paolo; Svoronos, Alexander. AA Centre for Operations Research and Econometrics, Universite Catholique de Louvain. SR Universite Catholique de Louvain CORE Discussion Paper: 8611; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. PG 20. PR No Charge. JE 022, 941. KW Hotelling Duopoly Model. Price Competition.

AB The paper describes the effects of relaxing the assumption of a homogeneous space in the Hotelling duopoly model. In particular, we consider a market composed of two distinct regions, differing in transportation costs. We analyse price competition between two sellers, one in each of the two adjacent regions. We show that if a price equilibrium exists, trade must flow from the low-cost region to the other. This, however, does not necessarily imply that the firm in the importing region quotes the highest price. We also provide a complete characterisation of price equilibria when the firms' locations are symmetric. The main result of the paper is that one observes a discontinuity in the behavior of the model at the point where it becomes homogeneous (standard Hotelling). All of the above results carry over a parallel model where regions are identified by different population densities (density model). Both models can be encompassed by another that combines all previous characteristics (density-transportation model).

Masson, R. T.

TI The Dynamics of Market Structure. AU Geroski, P. A.; Masson, R. T.; Shaanan, J.

Mathieson, Donald

TI International Capital Markets: Developments and Prospects. AU Watson, Maxwell; Mathieson, Donald; Kincaid, Russell; Kalter, Eliot.

Mathios, Alan

TI Mergers, Event Studies and Systematic Risk. AU Kupiec, Paul; Mathios, Alan.

Matutes, Carmen

TI Loss-Leaders: A Phenomenon of Price Competition or Implicit Collusion. AU Lal, Rajiv; Matutes, Carmen.

Mayer, Walter J.

PD May 1986. TI Estimating Disequilibrium Models With Limited A Priori Price Adjustment Information. AA Department of Economics, University of Florida. SR University of Florida Center for Econometrics and Decision Sciences Working Paper: 129; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. PG 23. PR No Charge. JE 211, 315. KW Disequilibrium Estimation. Price Adjustment. Commercial Loan Market.

AB This paper interprets the switching regression model with imperfect sample separation of Lee and Porter (1984) as a general approach for introducing price adjustment into the disequilibrium estimation problem. Adjustment enters the problem without an explicit adjustment equation, a known distribution for price changes, or the restriction that price changes reveal the sign of excess demand. Maximum likelihood estimation is discussed, and a new least squares method which provides consistent initial estimates is proposed. The approach is illustrated with an application to the commercial loan market, and serial correlation is accounted for with the nonparametric method of White and Domowitz (1984).

PD July 1986. TI Consistent Semiparametric Estimation of Disequilibrium Models Using the Method of Maximum Score. AA Department of Economics, University of Florida. SR University of Florida Center for Econometrics and Decision Sciences Working Paper: 131; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. PG 21. PR No Charge. JE 211, 213. KW Disequilibrium Models. Semiparametric Estimators. Maximum Score Method.

AB Semiparametric estimators for disequilibrium models are derived by extending the method of maximum score of Manski (1975, 1985) to a new class of applications. The estimators are preferable to the conventional maximum likelihood methods when the functional forms of the error distribution functions are unknown, the quantity transacted is an unknown function of supply and demand, or price adjustment is an unknown function of excess demand. Three models and their score estimators are presented in descending order of generality, but ascending order of informativeness. The most general model identifies the unknown parameters only up to an arbitrary scale factor; the other models permit identification without a loss of scale, but are more restrictive.

McAleen, Michael

TI On the Consistency of Joint and Paired Tests for Non-nested Regression Models. AU Dastoor, Naorayex K.; McAleen, Michael.

McCall, John J.

TI A Dynamic Retention Model for Air Force Officers Theory and Estimates. AU Gots, Glenn A.; McCall, John J.

McCormick, Barry

PD June 1986. TI The Structure of British Unemployment: Has the Contribution of Unstable Job Attachments been Overstated? AA University of Southampton. SR University of Southampton Discussion Paper in Economics and Econometrics: 8616; Department of Economics, University of Southampton,

Southampton S09 5NH, ENGLAND. **PG** 34. **PR** No Charge. **JE** 824, 813, 826, 122. **KW** Unemployment Frequency. Socio-Economic Variables. Job Turnover. Britain.

AB This paper has two objectives. First, the British evidence that socio-economic groups experiencing high unemployment do so largely because of a higher frequency of becoming unemployed, is re-examined in a way broadly comparable with the evidence produced from United States studies for example, Hall (1972) and Marston (1976). This extends Nickell's work (1980) by considering the simultaneous effects of all socio-economic variables upon the frequency and duration of unemployment, rather than estimating a sequence of partial comparisons in which each of the variables of interest are separately used to explain frequency and duration. Second, we examine for the first time using either United States or United Kingdom data the assumption common to studies of both countries, that differences in the frequency of unemployment largely reflect differences in job turnover, as opposed to differences in the likelihood that a job change results in an intervening spell of unemployment.

McGlynn, Elizabeth A.

PD October 1985. **TI** The Medi-Cal Program And Care For The Indigent in California. **AU** McGlynn, Elizabeth A.; Newhouse, Joseph P. **AA** Rand. **SR** Rand Paper: P-7082; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 44. **PR** No Charge. **JE** 913. **KW** Medi-Cal Program. Health Plans.

AB This paper examines three key aspects of the Medi-Cal program that affect cost and health outcomes: eligibility, scope of services, and method of payment. The 1982 reform legislation, A.B. 799, appears to have saved money, but had adverse health consequences for the affected population. Medi-Cal expenditures can be further reduced through changes in eligibility and services offered, but many costs may simply be shifted to local taxpayers. Nearly half the savings will accrue to taxpayers in other states because federal matching payments to California would be reduced. Expanded reliance on prepaid or capitated health plans may save money, but could cause access problems because of the heterogeneity of the patient population. Patient heterogeneity also means that the current method used to pay hospitals is unlikely to be viable in the long run.

Melitz, Jacques

PD February 1986. **TI** The Prospect of a Depreciating Dollar and Possible Tension Inside the European Monetary System. **AA** INSEE, Paris. **SR** Centre for Economic Policy Research Discussion Paper: 97; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 33. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 423, 431, 026. **KW** European Monetary System. Policy Conflict. Dollar Depreciation.

AB The depreciation of the dollar can lead to conflict within the European Monetary System. In order to develop this theme, I assume that the preferences of German policy-makers are more strongly anti-inflationary than those of the French. This means that the depreciation of the dollar will suit the Germans better than the French. Consequently, a dilemma can arise, wherein no possible realignment can resolve the conflict between France and Germany. Only a return to the conditions of the "snake" will do. That is, France may need to accept a situation where it bears exclusive responsibility for defending the jointly determined parity. But it may not be in the interests of the French nor even, possibly, those of the Germans for France to do so.

Meyers, Linda

TI The Contraceptive Role of Breastfeeding. **AU** Habicht, Jean Pierre; DaVanso, Julie; Buts, William P.; Meyers, Linda.

Michel, Philippe

TI Dynamic Consistency of Government's Behavior: A User's Guide. **AU** Cohen, Daniel; Michel, Philippe.

Minford, Patrick

PD April 1986. **TI** Rational Expectations and Monetary Policy. **AA** University of Liverpool, Liverpool. **SR** Centre for Economic Policy Research Discussion Paper: 104; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 30. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 130, 311, 321. **KW** Rational Expectations. Fiscal Policy. Monetary Policy. Phillips Curve. Time Inconsistency.

AB This survey essay considers how rational expectations have changed our evaluation of monetary policy. In the first section, various underpinnings of the "Phillips curve" relation between inflation and output are reviewed. All are concluded to be products of particular institutional set-ups whose origins are not well understood. The second section examines the joint implications of (a) the government budget constraint and (b) long-term stationarity of the government debt/GDP ratio. This generates the need for long-run "consistency" between fiscal and monetary policy, as well as a trade-off between current and future fiscal/monetary policy. The third section reviews monetary stabilisation policy. "Policy-effectiveness" will in general exist in rational expectations models in spite of the "shocking" early counter-example of Sargent and Wallace; the real problems relate to the desirability of such policy. The most serious problem is time inconsistency; policies of "reflation" involve reneging on previous counter-inflationary commitments, and models of reputation do not yet suggest this can be prevented without constitutional limitations. The essay concludes that rational expectations have made monetary institutions "more of a mystery than ever before".

TI When International Policy Coordination Matters: An Empirical Analysis. **AU** Cansoneri, Matthew B.; Minford, Patrick.

Mitchell, Bridger M.

TI Telecommunications Alternatives For Federal Users Market Trends and Decision Making Criteria. **AU** Johnson, Leland L.; Sirbu, Marvin A.; Mitchell, Bridger M.

PD February 1986. **TI** A Short Guide to Electric Utility Load Forecasting. **AU** Mitchell, Bridger M.; Ross, Judith Wilson; Park, Rolla Edward. **AA** Rand. **SR** Rand Report: R-3315-PSSP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 18. **PR** No Charge. **JE** 723, 613. **KW** Electric Utility Load Forecasting. Long-Term Electricity Forcasts. Peak Demand Forcasts.

AB Electric utilities, governmental energy agencies, and some private economic forecasting services make long-term forecasts of electricity and peak demand. This report briefly reviews the methods currently used to make such load forecasts, describes sources of variation between forecasts, and discusses the problems that confront electricity forecasters.

PD February 1986. **TI** Projecting the Demand for Electricity A Survey and Forecast. **AU** Mitchell, Bridger M.; Park, Rolla Edward; Labrune, Francis. **AA** Rand. **SR** Rand Report: R-3312-PSSP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 75. **PR** No Charge. **JE** 723, 613. **KW** Demand for Electricity. Regionalized Electricity Model.

AB The demand for electricity depends on the demand throughout the economy for electricity-using services. Forecasts of electricity consumption are typically based on a few measures of aggregate economic activity, population growth, energy policy changes, and the stock of electricity-using equipment. This report describes the economic factors that should be accounted for in a forecast. It summarizes the forecast values, and the models used to derive them, that have been obtained from major national and regional forecasts. The authors analyze one leading forecasting model -- the Regionalized Electricity Model -- in detail. They then modify the model to incorporate new equations representing the demand for electricity and use them to generate new forecasts for both the United States and one geographic region. Finally, they investigate the degree of uncertainty associated with electricity load forecasts.

TI Programmer's Guide To Modifications To The Regionalized Electricity Model. **AU** Labrune, Francis; Mitchell, Bridger M.

Mohring, Rolf H.

TI A Simple Linear-Time Algorithm to Recognize Interval Graphs. **AU** Korte, Norbert; Mohring, Rolf H.

Mookherjee, Dilip

TI Competitive Efficiency Wage Models with Keynesian Features. **AU** Kahn, Charles; Mookherjee, Dilip.

TI Competitive Efficiency Wage Models with Keynesian Features. **AU** Kahn, Charles; Mookherjee, Dilip.

Mooz, William E.

TI Projected Use, Emissions, And Banks of Potential Ozone-Depleting Substances. **AU** Quinn, Timothy H.; Wolf, Kathleen A.; Moos, William E.; Hammitt, James K.; Chesnutt, Thomas W.; Sarma, Syam.

TI Product Uses and Market Trends for Potential Ozone-Depleting Substances 1985-2000. **AU** Hammitt, James K.; Wolf, Kathleen A.; Camm, Frank; Mooz, William E.; Quinn, Timothy H.; Bamezai, Anil.

TI Product Uses and Market Trends for Potential Ozone-Depleting Substances 1985-2000. **AU** Hammitt, James K.; Wolf, Kathleen A.; Camm, Frank; Moos, William E.; Quinn, Timothy H.; Bamezai, Anil.

Morris, Carl N.

PD October 1985. **TI** Sample Selection In The Health Insurance Experiment: Comparing The Enrolled And Nonenrolled Populations. **AA** Rand. **SR** Rand Note: N-2354-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 66. **PR** No Charge. **JE** 913, 215. **KW** Health Insurance Experiment. Sample Selection.

AB This Note compares the sample of individuals enrolled in the experimental portion of the Health Insurance Experiment (HIE) with the sample that was not enrolled but completed a baseline interview. Failure to enroll could result from refusal, a move out of the area, not being asked to enroll, or other reasons. The results show that these two samples are more similar on the key variables of pre-experimental physician visits and self-rated health status than would be expected from simple random sampling. The favorable degree of matching reflects the use of the Finite Selection Model in the design of the experiment. The group that enrolled, however, did include more children than the group that did not enroll. Provided that appropriate adjustments are made for age, this analysis suggests that HIE samples will support inferences to the population from which they were drawn at least as well as traditional random sampling methods with a 100 percent enrollment rate.

Mouchart, Michel

TI Linear Bayes Estimation in Finite Populations With a Categorical Auxiliary Variable. **AU** Cocchi, Daniela; Mouchart, Michel.

TI The Structure of Econometric Specification: Model Building with Incomplete Restrictions. **AU** Dutta, Jayasri; Mouchart, Michel.

Mountain, Dean C.

PD October 1985. **TI** Peak and Off-Peak Industrial Demand for Electricity: The Hopkinson Rate in Ontario, Canada. **AU** Mountain, Dean C.; Hsiao, Cheng. **AA** Mountain: Ontario Hydro, Toronto, Canada and York University. Hsiao: Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8524; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 26. **PR** No Charge. **JE** 613, 723. **KW** Electricity Demand. Hopkinson Rate Structure.

AB Employing detailed records (1970-1980) of electricity consumption for Ontario Hydro, an econometric model is presented which calculates the responsiveness of large industrial customers to the traditional demand-energy or Hopkinson rate structure. This model reveals that for 49 per cent of the establishments statistically significant price responsiveness was observed; the pulp and paper industry exemplifies the largest responsiveness; production disruptions result in deterioration of the off-peak to peak electricity consumption ratio (load factor); establishments with own-generating facilities show little responsiveness; establishments with little substitution possibilities show moderate responsiveness; and shift differentials paid to workers do matter in determining an establishment's load factor.

Muellbauer, John

PD June 1986. **TI** Habits, Rationality and Myopia in the Life-Cycle Consumption Function. **AA** Nuffield College, Oxford University. **SR** Centre for Economic Policy Research Discussion Paper: 112; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 39. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 921, 023. **KW** Consumption Function. Rational Habit Formation. Myopic Habit formation.

AB This paper investigates the role of habits in the consumption function. Two types of habits are considered: rational and myopic, these being distinctions which have long been made in the literature on systems of demand equations. In both cases past consumption affects current preferences, thus breaking the intertemporal separability of preferences often assumed by economists. If habits are rational, consumers are aware of the effect of their current consumption decisions on their future marginal rates of substitution. If habits are myopic, consumers lack this awareness and this may result in a time inconsistency in their behaviour. We explore the consequences of these two types of habituation, both for traditional "solved-out" consumption functions and for consumption functions in the "Euler equation" form popularised by Hall (1978). The two types of habitual behaviour yield representations of the aggregate consumption function which are in principle observationally distinct. We estimate the Euler-equation form of the consumption function for quarterly United States data over the period 1954-1981. We also consider time aggregation and other specification issues, such as those posed by liquidity constraints.

Muller, Brockhaus G.

TI Exchange Rates, Interest Rates and Money: An Empirical Investigation. **AU** Weissenberger, E.; Muller, Brockhaus G.

Muto, Shigeo

PD March 1986. **TI** Possibility of Relicensing and Patient Protection. **AA** CORE, Universite Catholique de Louvain and Tohoku University. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8612; Centre for Operations Research and Econometrics, Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Neuve, Belgium. **PG** 22. **PR** No Charge. **JE** 621. **KW** Patent Protection. Innovation.

AB We examine the effects of patent protection, paying attention to its role of prohibiting relicensing. We focus on two questions. First, does the innovator have an incentive of licensing the concealable (easily kept secret, if not licensed) innovation in the case where patent protection is absent? Second, what effects does patent protection have upon the innovator's payoff and the consumers' welfare? Principal findings include the following. In the case of nondrastic innovations in the sense of Arrow, the innovator has an incentive of licensing even without patent protection. Patent protection generally benefits the innovator, but may cause damage to the consumers for large innovations. For drastic innovations, patent protection has no influence on licensing: Licensing never takes place regardless of whether it is provided or not.

Nalebuff, Barry

PD September 1986. **TI** Testing in Models of Asymmetric Information. **AU** Nalebuff, Barry; Scharfstein, David. **AA** Nalebuff: Princeton University. Scharfstein: Harvard University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 117; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. **PG** 31. **PR** No Charge. **JE** 022, 820, 026. **KW** Testing. Optimal Penalties. Self-Selection. Adverse Selection. Asymmetric Information.

AB This paper explores the role of testing in models of asymmetric information. We demonstrate conditions under which testing for underlying characteristics can overcome adverse selection problems and lead to a full-information competitive equilibrium. This paper provides a more general statement of Mirrlees's '1974 result on the optimal use of infinite fines. Where testing cannot fully resolve the problems associated with asymmetric information, we outline the source of the difficulties. Our results, developed in the context of a labor market, can be directly extended to other environments. In problems with asymmetric information testing to discover an agent's chosen action or underlying characteristic may significantly reduce the cost of moral hasard and adverse selection.

TI On 64 per cent - Majority Rule. **AU** Caplin, Andrew; Nalebuff, Barry.

Neary, J. Peter

PD July 1986. **TI** Protection, Economic War And Structural Change: The 1930s In Ireland. **AU** Neary, J. Peter; OGrada, Cormac. **AA** Neary: Department of Economics, Queens University. O'Grada: University College Dublin. **SR** Centre for Economic Policy Research Discussion Paper: 117; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 32. **PR** 1 pound sterling ($2.00) individuals; 1.50 pound sterling ($3.00) companies, libraries, institutions. **JE** 041, 112, 422, 813. **KW** Ireland. Employment Creation. Capital Controls. Tariff Protection. Specific Factors Model.

AB The paper describes the insights which trade theory can provide into economic developments in Ireland during the 1930s. First, a version of Ronald Jones's "specific factors" model is applied to the period after 1932, when a policy which combined industrial tariff protection and controls on capital inflows was imposed by the newly-elected De Valera government. It is shown that such a policy mix was inconsistent if the aim of policy was employment creation. The controls on capital inflows were ineffective in practice employment. This ineffectiveness benefitted, although it decreased welfare. The specific factors model is then developed, along Gruen-Corden lines, to allow for the effects of the government's "protillage" policy on the agricultural sector. In a separate section, we apply the standard partial equilibrium analysis of the gains and losses from tariffs to the so-called 'economic war' between Ireland and Britain (1932-8). The outcome tentatively supports the claim that Ireland 'did not lose' this war.

Neu, C. R.

PD May 1986. **TI** Extending the Medicare Prospective Payment System to Posthospital Care-Planning a Demonstration. **AU** Neu, C. R.; Palmer, Adele; Henry, Donald Putnam; Olson, George T.; Harrison, Scott. **AA** Rand. **SR** Rand Report: P-3335-HCFA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 117. **PR** No Charge. **JE** 913. **KW** Medicare. Posthospital Care. Prospective Payment System.

AB In view of the apparent initial success of the Medicare hospital prospective payment system (PPS) in slowing the rate of increase in Medicare outlays for hospital care, there have been suggestions to extend the system to include the posthospital care provided to Medicare patients by skilled nursing facilities and home health agencies. This report discusses the nature of an extended PPS, its potential benefits, and ways reimbursement rates might be set. It also addresses how a demonstration could be mounted, what could be learned from it, who would have to participate in it, and how demonstration sites might be chosen.

Neudecker, H.

TI The Covariance Matrix of a General Second Degree Matrix Polynomial Under Normality Assumptions. **AU** Browne, M. W.; Neudecker, H.

TI Matrix Differential Calculus and Static Optimization Part II Differentials: Theory. **AU** Magnus, J. R.; Neudecker, H.

TI Symmetry, 0-1 Matrices and Jacobians: A Review. **AU** Magnus, J. R.; Neudecker, H.

Newbery, David M.

PD April 1986. **TI** The Privatisation of British Gas and Possible Consequences for the European Gas Market. **AA** Churchill College, Cambridge. **SR** Centre for Economic Policy Research Discussion Paper: 101; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 31. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 723, 613, 632. **KW** British Gas Corporation. Privatisation. European Gas Market. Pipeline Link.

AB The British Government plans to privatise the British Gas Corporation in the autumn of 1986. The paper attempts to predict the possible consequences for the European gas market of privatisation, and their consequent implications for the United Kingdom. Much will depend on whether the Government relinquishes its control over trade in gas, and in particular allows the construction of a pipeline link to the European gas grid. We examine possible reasons why the Government has opposed the construction of a link in the past. These include the argument that it represents an attempt to exercise market power in the European gas market whilst avoiding the problem of dynamic inconsistency which trade taxes would encounter. None of the arguments are convincing on social welfare grounds, though they can be explained as an attempt by the BGC to increase its bargaining power vis-a-vis the oil companies. Given the current system of gas taxation this power is no longer desirable, whilst changes in the European gas market make a link attractive to the United Kingdom. We conclude that as a matter of urgency the Government should reconsider its attitude to gas trade and remove the obstacles to the construction of a link before privatisation takes place. Possible benefits include encouraging Norway to exploit Troll and sell it to Europe via Britain, allowing a more efficient depletion policy for United Kingdom gas fields, gaining access to peak shaving gas from Groningen, and increasing the degree of competition and the flexibility of the European gas market.

PD June 1986. **TI** Energy Policy Issues After Privatisation. **AA** Churchill College, Cambridge. **SR** Centre for Economic Policy Research Discussion Paper: 109; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 34. **PR** 1 pound sterling ($2) individuals; 1.50 pound sterling ($3) companies, libraries, institutions. **JE** 610, 723. **KW** Energy Policy. Privatisation. Regulation. Taxation. Gas. Coal. Electricity. Oil.

AB The purpose of this paper is to investigate how energy policy should respond to the changes in the organisation of energy sector associated with privatisation. The paper begins with a brief review of how energy policy was perceived before the 1973 oil shock, and the lessons learned from subsequent experience, both in terms of the issues which were thought to be important, and the theories which were argued to be relevant to its design. This brings us to the present, and the need to rethink energy policy in the light of experience and the changes in market structure. The four questions raised by these changes are: what should be the Government's policy on competition in the energy sector; how the privatised industries should be regulated; how the remaining publicly owned industries should be instructed to behave; and finally, what changes in taxation are now desirable.

Newell, Andrew

PD July 1986. **TI** The Phillips Curve is a Real Wage Equation. **AU** Newell, Andrew; Symons, James S. V. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 246; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 32. **PR** No Charge. **JE** 824, 023, 123. **KW** Phillips Curve. Real Wage Determination.

AB This paper examines the interpretation of the Phillips curve as a wage-bargaining equation. This interpretation implies roles for the tax and import price wedge, and relative bargaining strength in the determination of wages, but suggests that wages should not display nominal rigidity. These issues are examined for a sample of 16 OECD countries: we find for the bargaining interpretation and against naive formulations of the Phillips curve.

Newhouse, Joseph P.

TI The Effect of Cost Sharing on the Use of Medical Services by Children - Interim Results from a Randomized Controlled Trial. **AU** Leibowitz, Arleen; Manning, Willard G. Jr; Keeler, Emmett B.; Duan, Naihua; Lohr, Kathleen N.; Newhouse, Joseph P.

TI A Controlled Trial of the Effect of a Prepaid Group Practice on the Utilisation of Medical Services. **AU** Manning, Willard G.; Leibowitz, Arleen; Goldberg, George A.; Rogers, William H.; Newhouse, Joseph P.

TI The Impact of Cost Sharing On Emergency Department Use. **AU** OGrady, Kevin F.; Manning, Willard G.; Newhouse, Joseph; Brook, Robert H.

TI The Medi-Cal Program And Care For The Indigent in California. **AU** McGlynn, Elisabeth A.; Newhouse, Joseph P.

PD October 1985. **TI** Are Fee-For-Service Costs Increasing Faster Than HMO Costs? **AU** Newhouse, Joseph P.; Schwartz, William B.; Williams, Albert P.; Witsberger, Christina. **AA** Rand. **SR** Rand Note: N-2364-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 17. **PR** No Charge. **JE** 913. **KW** Health Maintenance Organizations. Fee-For-Service. Health Costs.

AB It is well known that the costs of care at Health Maintenance Organizations (HMO) at any point in time have been lower than in the fee-for-service sector, but how costs have changed in each of these sectors has been less well documented. The only previous study, which examined the HMO experience during the 1960s and early 1970s, found that HMO and fee-for-service costs rose at approximately the same rate. The present study, which extends this analysis to the period 1976-1981, also demonstrates that HMO costs increased at a rate not detectably different from that in the fee-for-service sector. These results are consistent with the earlier conclusions that HMOs cause a once-and-for-all reduction in cost. They also indicate that the public has been willing to pay for much of the increased costs of modern medical technology.

TI The Demand For Prescription Drugs As A Function of Cost-Sharing. **AU** Leibowitz, Arleen; Manning, Willard G.; Newhouse, Joseph P.

PD October 1985. **TI** Experimentation As Part of A Social Science Research Strategy. **AA** Rand. **SR** Rand Paper: P-7141; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 10. **PR** No Charge. **JE** 215, 011, 225. **KW** Social Science Research Projects. Project Funding. Experiments.

AB This paper was originally presented as testimony before the Subcommittee on Science, Research and Technology, Committee on Science and Technology, United States House of Representatives, on September 18, 1985. In it, the author argues in favor of increased federal funding of large-scale long-term social science research projects, citing some benefits gained from the Rand Health Insurance Study and the Panel Study of Income Dynamics. The former illustrates some advantages of a well done experiment: (1) one can be relatively confident about the findings; (2) one can study certain issues that cannot be studied by analysing existing data; and (3) all parties debating an issue will have a better understanding of it. The author suggests that the social sciences should have the same tradition of trials as the biomedical sciences do.

Nickell, Stephen

PD September 1986. **TI** A Disaggregated Disequilibrium Model of the Labour Market. **AU** Nickell, Stephen; Andrews, Martyn. **AA** Nickell: Institute of Economics and Statistics, Oxford University. Andrews: Macroeconomic Modelling Bureau, Warwick University. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 251; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 35. **PR** No Charge. **JE** 821, 824. **KW** Disequilibrium. Labour Market.

AB In this paper we derive an explicit aggregate labour market model which is based on a series of sub-markets each of which is in disequilibrium. This model provides a generalisation of the standard min-condition disequilibrium framework and is estimated using aggregate data for the United Kingdom.

Norgaard, Richard B.

PD January 1986. **TI** The Scarcity of Resource Economics. **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: 391; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 19. **PR** $3.80. **JE** 721, 722. **KW** Resource Scarcity. Resource Economics. Natural Resources.

AB To question the long-run adequacy of natural resources is to ponder the future of the human race. Answers to all other economic questions hinge on this ultimate ponderable. Economists have contributed to the framing and pursuit of this overarching question. Ultimate answers, of course, are not in the offing, and so one might expect economists to condition their analyses and proffer specific resource use and development prescriptions with some modesty and attention to the larger, long-run question. But in the arena of resource and development policy, humility and conditional prescriptions have been evaded through incomplete, blindly optimistic, and -- too frequently -- flippant, arguments as to why resources over the long run are not of special concern. This essay addresses the incongruous role economists have played -- as theorists, empiricists, and participants in the policy debate -- with respect to the ultimate ponderable.

OGrada, Cormac

TI Protection, Economic War And Structural Change: The 1930s In Ireland. **AU** Neary, J. Peter; OGrada, Cormac.

OGrady, Kevin F.

PD October 1985. **TI** The Impact of Cost Sharing On Emergency Department Use. **AU** OGrady, Kevin F.; Manning, Willard G.; Newhouse, Joseph; Brook, Robert H.

AA Rand. **SR** Rand Note: N-2376-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 26. **PR** No Charge. **JE** 913, 914. **KW** Fee-For-Service. Cost Sharing. Emergency Department Use.

AB The authors of this Note studied the effect of insurance coverage on the use of emergency department services, using data from a national trial of cost sharing in health insurance. A total of 3973 persons below the age of 62 years were randomly assigned to fee-for-service health insurance plans with coinsurance rates of 0, 25, 50, or 95 percent, subject to an income-related upper limit on out-of-pocket expenses. Persons with no cost sharing had emergency department expenses that were 42 percent higher than those for persons on the 95 percent plan ($p < 0.01$) and about 16 percent higher than those for persons with smaller amounts of cost sharing. Without cost sharing, emergency department visits for less serious diagnoses (e.g. abrasions) increased three times as much as did visits for more serious diagnoses (e.g. lacerations). Controlling for insurance, persons in the lower third of the income distribution had emergency department expenses that were 64 percent higher than those in the upper third ($p < 0.001$) and received a greater proportion of their ambulatory care in the emergency department. It was concluded that the absence of cost sharing results in significantly greater emergency department use than does insurance with cost sharing. A disproportionate amount of the increased use involves less serious conditions.

Olson, George T.

TI Extending the Medicare Prospective Payment System to Posthospital Care-Planning a Demonstration. **AU** Neu, C. R.; Palmer, Adele; Henry, Donald Putnam; Olson, George T.; Harrison, Scott.

TI Extending the Medicare Prospective Payment System to Posthospital Care-Planning a Demonstration. **AU** Neu, C. R.; Palmer, Adele; Henry, Donald Putnam; Olson, George T.; Harrison, Scott.

Ono, Yoshiyasu

PD August 1986. **TI** Direct Investment, Indirect Investment and National Welfare. **AA** Osaka University; Princeton University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 114; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. **PG** 35. **PR** No Charge. **JE** 411, 441. **KW** Direct Investment. Oligopoly. National Welfare.

AB This paper examines the difference in effect on national welfare between direct and indirect investment. In addition to similar effects indirect investment has, direct investment has an aspect of foreign direct penetration. If domestic firms earn excess profits, direct investment removes the excess profits and so decreases national income. Therefore under the non-existence of excess profits, the equivalence of direct and indirect investment holds. However, under the existence of excess profits, direct investment can be harmful to the host country especially when the scale of foreign penetration is small.

Othman, Ramli

TI Age At Menarche In Peninsular Malaysia: Time Trends, Ethnic Differentials, And Association With Ages At Marriage and at First Birth. **AU** Ann, Tan Boon; Othman, Ramli; Buts, William P.; DaVanzo, Julie.

Paglin, Morton

PD February 1986. **TI** Human Capital and Occupational Choice: A Reformulation. **AU** Paglin, Morton; Rufolo, Anthony M. **AA** Portland State University. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-4; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 39. **PR** No Charge. **JE** 851, 812, 912, 917. **KW** Human Capital Models. Occupational Choice. Educational Capital.

AB The traditional human capital models have focused on the rate of return to investment in a homogeneous stock of capital measured by years of schooling and on the job training. Recent studies have differentiated types of educational capital; but this has been in terms of varying rates of obsolescence or atrophy, not by differences in the inputs required to produce the various kinds of educational capital. The present study moves from the generalized concept of human capital to a specification of types of human capital goods, each with its own production function. Individuals have different initial attributes. These endowments constrain choice, and differences in the return to various types of human capital are explained by the shadow prices of the individual attributes used in the production of each type of human capital. The model successfully accounts for the observed male-female differences in earnings and occupational choices of recent college graduates.

Palmer, Adele R.

TI Extending the Medicare Prospective Payment System to Posthospital Care-Planning a Demonstration. **AU** Neu, C. R.; Palmer, Adele; Henry, Donald Putnam; Olson, George T.; Harrison, Scott.

PD June 1985. **TI** Economics of Participation in Preferred Provider Organizations. **AA** Rand. **SR** Rand Report: R-3228-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 47. **PR** No Charge. **JE** 913. **KW** Health Care Delivery. Health Care Financing. Preferred Provider Organizations.

AB This report examines the economic properties of health care delivery and financing systems commonly known as Preferred Provider Organizations (PPOs) as viewed by each type of participant -- hospitals, physicians, payors, and beneficiaries. It aims to help potential participants make better informed judgments about whether a particular PPO will benefit them, and to set the stage for future empirical studies of PPO performance. The analysis suggests that the potential for a PPO's survival is greatest when its provider members are the most cost-effective ones in the community, when the PPO insurance plan offers adequate incentives to redirect patients to member providers (and when the patients would otherwise use alternative providers), and when the plan does not include provisions that substantially increase overall demand for health care. Under these conditions, the PPO has a chance of yielding financial gains that can be shared by all participants, though perhaps to varying degrees.

PD June 1985. **TI** Existing Chemicals Regulation Under the Toxic Substances Control Act: Models And Methods for Policy Evaluation. **AU** Palmer, Adele R.; Kohler, Daniel F. **AA** Rand. **SR** Rand Note: N-2259-EPA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 77. **PR** No Charge. **JE** 722, 613, 024. **KW** Toxic Substances Control Act. Policy Evaluation. Welfare Analysis. Regulation. Environmental Protection Agency.

AB Under the Toxic Substances Control Act (TSCA), the United States Environmental Protection Agency is mandated to control human and environmental hazards caused by existing as well as new chemicals. For each chemical, testing or regulatory options must be identified and their benefits and costs evaluated. A major evaluation component is economic welfare analysis, which examines the incidence of regulatory costs to determine how much will be incurred by industry and how much will be shifted to consumers, and assesses potential regulatory effects on the overall efficiency with which the economy uses available resources to meet society's goals. This Note provides a basic reference source for welfare analytic concepts and methods that pertain to circumstances commonly encountered in TSCA policy evaluation. It reviews the main concepts of welfare theory, and extends the theory to cases in which regulating one chemical affects the demand for related products on the one hand, and on the other hand, to cases in which regulating a chemical affects markets for the inputs used to produce it or the products made. Finally, it deals with techniques for quantifying welfare measures.

Park, Rolla Edward

TI Projecting Response to Time-of-Day Electricity Rates. **AU** Acton, Jan Paul; Park, Rolla Edward.

TI A Short Guide to Electric Utility Load Forecasting. **AU** Mitchell, Bridger M.; Ross, Judith Wilson; Park, Rolla Edward.

TI Projecting the Demand for Electricity A Survey and Forecast. **AU** Mitchell, Bridger M.; Park, Rolla Edward; Labrune, Francis.

Pasinetti, Luigi L.

PD October 1985. **TI** Sraffa's Circular Process and the Concepts of Vertical Integration. **AA** Universita Cattolica del Sacro Cuore. **SR** University of Southern California Modelling-Research Group Working Paper: M8520; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 21. **PR** No Charge. **JE** 022, 611. **KW** Vertical Integration. Production. Sraffa's Circular Process.

AB One may look at production as a circular process, in the way Sraffa has done by constructing his "sub-systems". One may also look at production by conceptually constructing, behind each final good, a vertically integrated sector which consolidates all intermediate commodities into one physical quantity of labour and one physical unit of productive capacity. In this paper, the two points of view are compared, related, and shown to be complementary, the one serving the purpose of inter-industry analysis and the other that of dynamic analysis. Moreover, they are shown to be helpful on the way to an integration of those two diverse types of analysis associated with the names of Sraffa and Keynes, which have stemmed from the same preoccupations (inadequacy of traditional economics), but have not so far been merged into a unified research programme.

Pesaran, Bahram

TI The Exact Multiperiod Mean-Square Forecast Error for the First-Order Autoregressive Model. **AU** Hoque, Asraul; Magnus, Jan R.; Pesaran, Bahram.

Peterson, Christine E.

TI Reenlistment Bonuses and Retention Behavior Executive Summary. **AU** Hosek, James R.; Peterson, Christine E.

TI Enlistment Decisions of Young Men. **AU** Hosek, James R.; Peterson, Christine E.

TI Educational Expectations and Enlistment Decisions. **AU** Hosek, James R.; Peterson, Christine E.; Eden, Rick A.

Petit, Pascal

PD 1986. **TI** La Modernisation Face aux Metamorphoses de l'Economie Francaise 1945-1985 (Modernization in a Changing Economy: France Experiences 1945-1985). **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8608; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 41. **PR** 20 FF. **JE** 110, 616. **KW** Modernization. Planning. Industrial Policy.

AB France's experience of modernization in the 50's gave its appeal to some state interventionism in the economy. Conditions for this success are numerous, and it is not surprising to assess that they have changed 25 years afterward. It is nevertheless important to understand what made this interventionism coherent at the time, if one wants to achieve successfully a new modernization in the 80's. This paper starts with evaluating the basis for the initial success in the fifties (section I); it then follows in assessing their transformations in the 60's and 70's (section II), which leads finally to outline the conditions set for success in the 80's (section III). (Paper in French).

Phelps, Charles E.

TI Demand for Supplementary Health Insurance. **AU** Marquis, M. Susan; Phelps, Charles E.

Pindyck, Robert S.

PD May 1986. **TI** Risk Aversion and Determinants of Stock Market Behavior. **AA** Visiting Professor, Department of Economics, Tel-Aviv University; Massachusetts Institute of Technology; National Bureau of Economic Research. **SR** Tel Aviv Foerder Institute for Economic Research Working Papers: 17-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 22. **PR** No Charge. **JE** 313, 521. **KW** Stock Market. Stock Prices. Risk Aversion.

AB A simple model of equity pricing is developed to address two related questions. First, to what extent can unanticipated changes in such "fundamental" variables as profitability, real interest rates, inflation, and the variance of returns account for the observed behavior of the stock market? Second, how risk averse are investors in the aggregate? We find that the pretax profit rate and the variance of returns are both significant explanators of the market, and interest rates somewhat less so. Estimates of the index of relative risk aversion are obtained that put that parameter in the range of 3 to 4.

PD May 1986. **TI** Irreversible Investment, Capacity Choice, and the Value of the Firm. **AA** Department of Economics, Tel-Aviv University and M.I.T. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 24-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 30. **PR** No Charge. **JE** 522, 641. **KW** Investment. Capacity. Capacity Utilization. Value of the Firm.
AB A model of capacity choice and utilization is developed consistent with value maximization when investment is irreversible and future demand is uncertain. Investment requires the full value of a marginal unit of capacity to be at least as large as its full cost. The former includes the value of the firm's option not to utilize the unit, and the latter includes the opportunity cost of exercising the investment option. We show that for moderate amounts of uncertainty, the firm's optimal capacity is much smaller than it would be if investment were reversible, and a large fraction of the firm's value is due to its options for future growth. We also characterize the behavior of capacity and capacity utilization, and discuss implications for the measurement of marginal cost and Tobin's q.

PD July 1986. **TI** Irreversible Investment, Capacity Choice, and the Value of the Firm. **AA** M.I.T. **SR** National Bureau of Economic Research Working Paper: 1980; National Bureau of Economic Research 1050 Massachusetts Avenue Cambridge MA 02138. **PR** $2.00. **JE** 641, 522, 022. **KW** Investment. Capacity Choice. Value of the Firm.
AB A model of capacity choice and utilization is developed consistent with value maximization when investment is irreversible and future demand is uncertain. Investment requires the full value of a marginal unit of capacity to be at least as large as its full cost. The former includes the value of the firm's option not to utilize the unit, and the latter includes the opportunity cost of exercising the investment option. We show that for moderate amounts of uncertainty, the firm's optimal capacity is much smaller than it would be if investment were reversible, and a large fraction of the firm's value is due to the possibility of future growth. We also characterize the behavior of capacity and capacity utilization, and discuss implications for the measurement of marginal cost and Tobin's q.

Plant, Mark W.

TI The Ins and Outs of Unemployment: The Ins Win. **AU** Darby, Michael; Haltiwanger, John C.; Plant, Mark W.

Plott, Charles R.

PD April 1986. **TI** Dimensions of Parallelism: Some Policy Applications of Experimental Methods. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 569; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 34. **PR** No Charge. **JE** 011, 036. **KW** Experimental Methodology.
AB The paper reviews ten policy related experimental projects. The focus is on the way that questions were posed in order to permit the application of experimental methods. Several strategies are isolated and discussed.

Polemarchakis, H. M.

TI Intertemporal Equilibrium and Disadvantageous Growth. **AU** Donsimoni, M. P.; Polemarchakis, H. M.

Polin, Sandra S.

TI Automobile Accident Compensation Volume IV: State Rules. **AU** Hammitt, James K.; Houchens, Robert L.; Polin, Sandra S.; Ralph, John E.

Polinsky, A. Mitchell

PD February 1986. **TI** The Welfare Implications of Costly Litigation in the Theory of Liability. **AU** Polinsky, A. Mitchell; Rubinfeld, Daniel L. **AA** Polinsky: Stanford University. Rubinfeld: University of California, Berkeley. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-8; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 36. **PR** No Charge. **JE** 916. **KW** Liability. Compensatory Damages. Litigation.
AB One of the principal results in the economic theory of liability is that, assuming litigation is costless, the rule of strict liability with compensatory damages leads the injurer to choose the socially appropriate level of care. This paper reexamines this result when litigation is costly. It is shown that strict liability with compensatory damages generally leads to a socially inappropriate level of care and to excessive litigation costs. Social welfare can be increased by adjusting compensatory damages upward or downward, with the desired direction depending on the effect of changes in the level of liability on the injurer's decision to take care and on the victim's decision to bring suit.

PD April 1986. **TI** Detrebling Versus Decoupling Antitrust Damages: Lessons from the Theory of Enforcement. **AA** Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-14; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 17. **PR** No Charge. **JE** 916. **KW** Antitrust. Enforcement Theory. Decoupling. Damage Multiplier.
AB This comment compares two alternative systems of private antitrust enforcement. In one (referred to as the "damage multiplier approach"), the plaintiff receives what the defendant pays; in the other (the "decoupling approach"), this constraint is not imposed. Reducing treble damages to single damages ("detrebling") would be an example of the first approach. Making the defendant pay treble damages while only giving the plaintiff single damages would be an example of the second approach. It is shown, using the principles of the economic theory of enforcement, that the decoupling approach is preferable to the damage multiplier approach, and that the optimal

system of decoupling could award the plaintiff more or less than what the defendant pays.

Portes, Richard

PD April 1986. **TI** Finance, Trade and Development: Issues in Transatlantic Cooperation. **AA** Department of Economics, Birkbeck College, London. **SR** Centre for Economic Policy Research Discussion Paper: 100; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 21. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 423, 430, 410. **KW** Anglo-American Relationship. International Finance. International Trade. Policy Coordination.

AB Despite current economic problems and conflicts - or perhaps as their cause - the concordance of policies among the major industrial countries in the first half of the 1980s in dealing with finance, trade and development is at a peak. This has been the result not so much of cooperation or coordination as of the more-or-less independent adoption of common policies. The policies are similar not because they are imposed by a dominant, hegemonic power or an international institution, nor by imitation, but because governments have chosen similar approaches to their common problems. It is nevertheless possible that the alliance between the United States and Britain has played a significant role in getting others to follow them, through some influence of Britain in the EEC as well as the force of the American example. After a general introduction, the paper considers successively the problem areas of finance, trade and development, focussing throughout on the Anglo-American relationship, but always in the broader context of the international economy.

Pound, John

PD June 1986. **TI** Speculative Behavior of Institutional Investors. **AU** Pound, John; Shiller, Robert J. **AA** Pound: Securities and Exchange Commission. Shiller: Yale University. **SR** National Bureau of Economic Research Working Paper: 1964; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 313. **KW** Speculative Behavior. Institutional Investors. Survey. Diffusion Model.

AB A survey compared speculative behavior in two groups of institutional investors. The 'experimental' group held stocks that had shown extraordinary price increases over the preceding year that also had high price earnings ratios. The control group held randomly selected stocks. In Shiller and Pound '1986 we argued that the survey results gave some support to some diffusion or epidemic models for interest in the stocks in the experimental group. Here, we show that the two groups are similar in describing their investment strategy as relating to a theory about fundamental value rather than about the kind of stocks that are becoming attractive to investors. However, the experimental group is less likely to make explicit comparisons of price with measures of fundamental value, and differs from the control group in their attitudes toward timing, price changes, and short-term earnings disappointment. Overall, these results appear consistent with the notion that price changes unrelated to fundamentals may be caused by contagious enthusiasm about fundamentals amongst institutional investors. The holding patterns of those experimental group investors who said that they were unsystematic in their stock choice are studied. These investors tended to show gradually increasing holdings over the period of stock price increase. Reasons respondents gave for the gradual increase are discussed.

Pradel, Jacqueline

TI Strong Concentration Ordering. **AU** Fourgeaud, Claude; Gourieroux, Christian; Pradel, Jacqueline.

Press, S. James

PD April 1985. **TI** The MISER Criterion for Imbalance in the Analysis of Covariance. **AA** Rand. **SR** Rand Paper: P-7066; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 27. **PR** No Charge. **JE** 215, 211. **KW** Standard Error. Unbalanced Experimental Design. Analysis of Covariance.

AB This paper describes a new computer-intensive statistical technique for comparing unbalanced experimental designs that will be modeled by the univariate analysis of covariance. It proposes treating the imbalance in the design by Minimising the Inflation of the Standard Error of a contrast (MISER). It provides results for both the standard Gauss-Markov model (constant error variance) and the model with heteroscedasticity. It also discusses the problem of attributing the increased variance caused by imbalance in a design to particular covariates. The effect of implementing the proposed MISER criterion is to generate a design that has great sensitivity to treatment effect differences. The MISER criterion is applied to the Department of Defense's Enlistment Bonus Test, involving offering cash incentives to induce high quality young men to enlist in the United States Army.

Prof, Vines David

TI Policy Design and Operation in a Macroeconomic Model With a Managed Exchange Rate Under Different Expectational Regimes. **AU** Christodoulakis, Nicos; Prof, Vines David.

Promel, Hans Jurgen

PD January 1986. **TI** Partition Properties of q-Hypergraphs. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 86410; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 40. **PR** No Charge. **JE** 213. **KW** Partition Theorem. Finite Hypergraphs.

AB A q-analogue to a partition theorem for finite hypergraphs of Nesetril and Rodl 'J. Combinatorial Theory Ser. A 22 (1977), 289-312 and 34 (1983), 183-201 is proven. This generalises the vector space Ramsey theorem of Graham, Leeb and Rothschild 'Adv. in Math. 8 (1972), 417-433.

PD April 1986. **TI** Asymptotic Enumeration of l-Colorable Graphs. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 85405; Sonderforschungsbereich 303 an

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der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** No Charge. **JE** 213. **KW** l-Colorable Labeled Graphs.

AB In this note an asymptotic formula for the number of l-colorable labeled graphs is derived. As consequences we obtain, for example, asymptotic formulas for the number of l colorable unlabeled graphs and the number of K(l+1)-free graphs, as well in the labeled as in the unlabeled case.

Quinn, Timothy H.

PD December 1984. **TI** A More General Theory of Environmental Policy With An Application To The Evolution of Groundwater Law in California. **AA** Rand. **SR** Rand Paper: P-7048; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 386. **PR** No Charge. **JE** 613, 721, 612. **KW** Property Right Systems. Common Property. Groundwater Resources.

AB This study examines the evolution of property right systems in response to negative externalities by focusing on the interactions between, first, the allocative and distributional consequences of regulation in private economic markets and, second, collective decisions in the political marketplace. The study develops a general conceptual framework for the positive analysis of collective decisions on these public policy issues. This framework is then applied to the evolution of laws and policies governing the use of common property groundwater resources in California. The empirical analysis explains why different parts of California have evolved such radically different property right systems in response to an essentially identical externality problem. The study has important implications for the role of formal economic analysis in forging "more intelligent" public policies to address problems in water policy and other policy areas.

TI Improving MILSATCOM Acquisition Outcomes: Lease Versus Buy. **AU** Dinneen, P. M.; Quinn, T. H.

TI Bargaining Responses to the Technology Revolution The Case of the Newspaper Industry. **AU** Dertouzos, James N.; Quinn, Timothy H.

TI Contractual Responses to Structural Changes In Labor Markets. **AU** Dertouzos, James N.; Quinn, Timothy H.

PD January 1986. **TI** Projected Use, Emissions, And Banks of Potential Ozone-Depleting Substances. **AU** Quinn, Timothy H.; Wolf, Kathleen A.; Mooz, William E.; Hammitt, James K.; Chesnutt, Thomas W.; Sarma, Syam. **AA** Rand. **SR** Rand Note: N-2282-EPA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 155. **PR** No Charge. **JE** 722, 721. **KW** Ozone Depletion. Emissions.

AB In recent years, there has been growing concern that the release of certain synthetic chemicals, including the chlorofluorocarbons (CFCs), may contribute to the depletion of the earth's protective stratospheric ozone layer. This Note examines from an economic perspective the forces that will shape long-term emission profiles for seven chemicals, including the two major CFCs, suspected of contributing to potential ozone depletion. The study adopts a long time frame for analysis, simulating emission profiles from 1980 through 2075. The findings indicate that under no circumstances do zero growth assumptions appear to be a reasonable basis for calculating long-term emission profiles. Moreover, growth rates in production and emissions of these chemicals will probably be higher in the next few decades than in the more distant future. Holding other things constant, this will tend to increase expected ozone depletion relative to model results obtained by making unrealistic steady-state emissions estimates. The authors emphasize the need for further research on this policy issue.

TI Product Uses and Market Trends for Potential Ozone-Depleting Substances 1985-2000. **AU** Hammitt, James K.; Wolf, Kathleen A.; Camm, Frank; Mooz, William E.; Quinn, Timothy H.; Bamezai, Anil.

Quirmbach, Herman C.

PD July 1985. **TI** The Path of Price Changes in Vertical Integration. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8513; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 22. **PR** No Charge. **JE** 611, 022. **KW** Vertical Integration. Forward Integration. Price Path.

AB The paper examines the path of final good price changes when a monopoly supplier of an intermediate good vertically integrates into a competitive, constant returns final good industry. We show that the price rises while the monopolist is taking over the downstream industry and then falls after downstream monopolisation is complete. The relationship of these results to the existing literature on full forward integration is established. Finally, we extend the price change analysis to the case where the intermediate good industry consists of a dominant firm and a competitive fringe. Here we show that the final good price begins to fall even before downstream monopolisation is complete and that partial integration may in a sense be endogenous.

Ralph, John E.

TI Automobile Accident Compensation Volume IV: State Rules. **AU** Hammitt, James K.; Houchens, Robert L.; Polin, Sandra S.; Ralph, John E.

Ramanathan, Ramu

PD September 30, 1986. **TI** A Note on the Lagrange Multiplier Test And Model Selection Criteria. **AA** University of California at San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 86-19; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PG** 17. **PR** \$2.00; checks payable to University of California Regents. **JE** 211, 212. **KW** Lagrange Multiplier Test. Model Selection. LM Test.

AB While carrying out a Lagrange Multiplier (LM) test for the inclusion of additional variables in an econometric model, an auxiliary regression is run in which the estimated residuals are regressed against the original variables (X1) plus the candidates for inclusion (X2 and X3). Based on this, a subset (X2) is chosen for inclusion. A natural question is whether the process should be repeated with X1 and X2 in the original specification and an LM test performed on X3. This paper proves that this sequential testing is unnecessary. An illustrative empirical example is included in which several criteria for choosing among models are discussed.

Rausser, Gordon C.

PD January 1986. **TI** Macroeconomic Linkages, Taxes, and Subsidies in the United States Agricultural Sector. **AU** Rausser, Gordon C.; Chalfant, James A.; Love, H. Alan; Stamoulis, Kostas G. **AA** Department of Agricultural and Resource Economics, University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics(Cudare) Working Paper: 393; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 36. **PR** $7.20. **JE** 713, 710, 023, 323, 431. **KW** Macroeconomic Linkages. Taxes. Agricultural Subsidies. Macroeconomic Policies. Agricultural Policies. United States.

AB This paper addresses issues like: what are the major linkages between the agricultural sector and the rest of the economy? What is the order of magnitude of external effects in explaining agriculture's behavior in the 1970s and 1980s? A principal constraint facing any empirical attempt to address these issues is the lack of adequate sample data on flexible exchange rates and interest rates facing the United States agricultural sector. In the case of flexible exchange rates, approximately 11 years of data are available; in the case of truly flexible nominal interest rates facing agriculture, only five years of data are available. As a result, the empirical work here will be based on a quarterly representation. This frequency is also necessary to capture the effects of instability on stocks and prices. Two major policy simulation experiments are reported. The results demonstrate convincingly the importance of monetary and fiscal policy for the performance of the United States agricultural sector. Finally, some concluding remarks are presented which focus on the design of agricultural sector policies for responding to commodity market overshooting.

PD April 1986. **TI** A Coherent Policy for United States Agriculture. **AU** Rausser, Gordon C.; Foster, William E. **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: 412; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 67 pages. **PR** $13.40. **JE** 713, 122. **KW** Food Policy. United States Agricultural Policy. Family Farms.

AB We discuss the goals of agricultural policy, including that of avoiding political failure in the implementation of programs. Next we analyse the world in which agricultural policy must act, examining the contradictions between sector-specific programs and other policies. We also investigate some specific commodity settings, the interests of agriculturally related groups other than simply farmers, and the political dimensions of policy construction and implementation. Before detailing our own proposals, we provide a review of some popularly discussed alternatives for policy. Finally, we present a set of proposed programs that we believe would yield a more coherent policy for United States agriculture.

Rea, Samuel A. Jr

TI Unemployment Insurance and Male Unemployment Duration in Canada. **AU** Ham, John C.; Rea, Samuel A. Jr.

Reiss, Peter C.

PD August 7, 1986. **TI** Detecting Multiple Outliers with an Application to R and D-Productivity Studies. **AA** Graduate School of Business, Stanford University. **SR** Stanford Graduate School of Business Research Paper: 893; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 33. **PR** No Charge. **JE** 621, 211. **KW** Influence Statistics. Outlier Tests. Residuals. Productivity. R and D.

AB Multiple outlying observations are frequently encountered in applied studies in business and economics. Several multiple outlier tests exist, but little evidence is available on their relative power against alternative types of outliers and influence. This paper analytically and numerically compares the sensitivity of these statistics to particular forms of data contamination. It also proposes new statistics. Practical issues associated with the application of these tests are illustrated by re-examining recent evidence of an R and D-productivity slowdown. New data from Griliches and Lichtenberg (1984) are used to show that the low rates of return to federal and private R and D found in other studies may be due to the presence of outliers.

Remmerswall, J. C. M.

PD March 1985. **TI** Determination of an Upperbound for the Adjustment Coefficient. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 5/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 27. **PR** No Charge. **JE** 213. **KW** Bounds on Integrals. Moments. Adjustment Coefficient.

AB With the help of continued fractions we obtain a method for calculating bounds on integrals of the form: integral from sero to infinity of f(x)dF(x) when the first moments u sub j = integral from sero to infinity of x sup j dF(x), j = 0, 1,., n are known. We then apply this method to obtain upper bounds for the adjustment coefficient, and it is illustrated that these upper bounds can be used to obtain reasonably good approximations for the ruin probability (where we use as little as 3 or 4 moments to obtain the upper bound).

Ricardo, Campbell Rita

PD October 1986. **TI** United States Social Security and Conditions of Low Fertility. **AA** Hoover Institution, Stanford University. **SR** Stanford Hoover Institution Working Paper in Economics: E-86-58; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 38. **PR** No Charge. **JE** 915, 841. **KW** Fertility. Social Security. Demographic. Mortality. Women. Part Time Work.

AB The long run survival of the non-funded United

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States social security system depends on a nonshrinking labor force. In the recent past increasing labor force participation by women has offset increasing earlier retirement of men. Seventy percent of women between 20 and 44 years are working today and the total fertility rate over a woman's lifetime is 1.8 births. Women's labor force participation and fertility rates are mutually interdependent, as working women try to reduce demands on their time. Increasingly, women, not men are the dominant decision makers about the number of children women will bear. The nearly 50 percent decline in the use of the oral contraceptive by married women aged 15-44 years over the period 1973-82 is likely to be reversed as it becomes more widely known that the oral contraceptive protects, not harms the health of non-smoking women. The potential interrelated impact on fertility, with increased use of irreversible surgical sterilization could be substantial. The social security administration (SSA) overestimates future births to women and underestimates future longevity. To the degree that SSA's assumptions on mortality and fertility are too optimistic in respect to costs, either higher than predicted future payroll taxes or reduced future social security benefits will occur. The United States fertility rate of 1.8 births over a woman's lifetime is higher than Italy's 1.5 and Denmark's 1.4. Family allowances do not appear to be a public policy solution. Exploration of the role of part-time work availability may prove worthwhile.

Ridder, G.

PD February 1985. **TI** The Number of Transitions and the Occupation Time in Continuous Time Markov Chains: Distributions and Algorithms. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 4185; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 32. **PR** No Charge. **JE** 213. **KW** Continuous-Time Markov Chain. Transition Count. Occupation Time. Algorithm.

AB In this paper we derive the distribution of the transition count and the occupation time in continuous-time Markov chains. We give explicit expressions for the probability mass function of the transitions count and the moments of the occupation time. We also describe an algorithm for the computation of these quantities and discuss the numerical properties of this algorithm. From the computed moments we obtain bounds on the distribution function of the occupation time.

Roberts, John D.

PD October 22, 1986. **TI** An Equilibrium Model with Keynesian Unemployment at Walrasian Prices. **AA** Stanford University. **SR** Stanford Graduate School of Business Research Paper: 908; Graduate School of Business, Stanford University, Stanford, CA 94305-2391. **PG** 28. **PR** No Charge. **JE** 023, 021, 026. **KW** Involuntary Unemployment. Equilibrium. Competitive Prices. Games. Keynesian Models.

AB This paper considers a class of economies in which the set of consumers who buy output from any firm is disjoint from the set who sell input to it. The economic institutions involve firms' first announcing prices and wages, consumers' responding with amounts they want to transact with various firms, and finally firms' deciding how much of these orders and offers to accept. This structure gives rise to a game in extensive form. This game has multiple subgame perfect equilibria involving Walrasian prices but differing levels of economic activity. Low-level equilibria involve involuntary unemployment: consumers are quantity-constrained in their labor market transactions. This occurs even though all prices are flexible, there are no informational asymmetries, and all agents in every circumstance correctly forecast the full implications of taking any of the actions open to them.

Roberts, Russell D.

PD February 1986. **TI** Financing Public Goods. **AA** University of Rochester. **SR** Stanford Hoover Institute Working Paper in Economics: E-86-9; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 20. **PR** No Charge. **JE** 322, 614, 024, 025. **KW** Public Goods. Subsidies. Direct Taxation. Distribution.

AB Public goods can be financed by direct taxation, by subsidies to private spending, or a combination of the two. It is argued in the tax expenditure literature that subsidies are more efficient than direct taxation when the price elasticity of private spending on the public good is greater than one in absolute value. This paper shows how the choice between subsidies and direct taxation depends on the tradeoff between private and public spending. When the tradeoff is dollar-for-dollar, for example, subsidies are always more efficient than direct taxation regardless of the elasticity. The efficiency gains, however, are likely to be quite small for pure public goods, but more significant for mixed goods. The second half of the paper examines the distributional consequences of the choice between subsidies and direct taxation. Paradoxically, when choosing between a flat subsidy (a tax credit) and a subsidy where the rich face lower prices of contributing (such as deductibility), the rich may prefer a flat subsidy when the good is a pure public good. I then show that the rich prefer deductibility when the good is a mixed good. In addition, the rich are likely to prefer direct taxation to a subsidy, because lower income taxpayers may still free-ride under a subsidy, shifting the burden of finance onto the richer taxpayers.

Robinson, Chris

TI An Operational Theory of Monopoly Union-Competitive Firm Interaction. **AU** MacDonald, Glenn; Robinson, Chris.

Robinson, Sherman

TI Computable General Equilibrium (CGE) Models for Socialist Economies. **AU** Kis, Peter; Robinson, Sherman; Tyson, Laura D.

TI The Treatment of Foreign Trade in Computable General Equilibrium Models of Small Economies. **AU** de Melo, Jaime; Robinson, Sherman.

TI Conditionality and Adjustment in Hungary and Yugoslavia. **AU** Tyson, Laura; Robinson, Sherman; Woods, Leyla.

TI The Application of General Equilibrium Models to Analyze United States Agriculture. **AU** Adelman, Irma; Robinson, Sherman.

Roe, Terry L.

TI Determinants of Rural and Urban Household Demand: An Analysis of Dominican Household Consumption. **AU** Yen, Tse Yi; Roe, Terry L.

Rogers, William H.

TI A Controlled Trial of the Effect of a Prepaid Group Practice on the Utilisation of Medical Services. **AU** Manning, Willard G.; Leibowitz, Arleen; Goldberg, George A.; Rogers, William H.; Newhouse, Joseph P.

Rogerson, Richard

PD September 1986. **TI** On the Nature of Unemployment in Economies With Efficient Risk Sharing. **AU** Rogerson, Richard; Wright, Randall. **AA** Rogerson: University of Rochester. Wright: Cornell University. **SR** University of Rochester Center for Economic Research Working Paper: 58; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 33. **PR** No Charge. **JE** 821, 020. **KW** Unemployment. Efficient Risk Sharing.

AB This paper considers the nature of unemployment in economies with efficient risk sharing. Two general classes of economies are studied: one where agents are homogeneous but there is a nonconvexity and the other where agents have different attitudes toward risk and there is a nonconvexity. It is demonstrated that the two classes of environments produce a common first order condition relating marginal utilities of employed and unemployed workers. Necessary and sufficient conditions for the unemployed to be worse off than the employed are demonstrated and examples are included to show that the conditions are nonvacuous.

TI Indivisible Labor, Experience and Intertemporal Allocations. **AU** Grilli, Vittorio; Rogerson, Richard.

Rogoff, Kenneth

PD July 1986. **TI** Reputational Constraints on Monetary Policy. **AA** University of Wisconsin. **SR** National Bureau of Economic Research Working Paper: 1986; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 311, 026, 023. **KW** Monetary Policy. Reputational Constraints. Credibility.

AB Recent advances in game theory have made it possible to study monetary policy credibility in a more structured fashion. Some have used these new models to argue that there is less need to place legal restraints on monetary policy than was previously believed; reputational considerations discourage the monetary authorities from attempting surprise inflations. In this study, I critically assess a number of alternative models of monetary policy reputation, including some variants which have not been examined previously. The bulk of the paper is concerned with comparing specific details of these models. One general conclusion is that although the first generation of models of monetary policy reputation yield a significant number of important insights, it is premature to argue that time consistency is not a major issue in the design of monetary policy institutions. The main problem is that the models either yield a multiplicity of equilibria, or/and yield conclusions which are very sensitive to apparently minor changes in the information structure. Whereas an optimal reputational equilibrium can be achieved without any explicit cooperation among atomistic private agents, it is not (yet) clear how they coordinate on expectations strategies.

Roley, V. Vance

TI News From the US and Japan: Which Moves the Yen/Dollar Exchange Rate? **AU** Ito, Takatoshi; Roley, V. Vance.

Rolph, John E.

PD 1985. **TI** Automobile Accident Compensation Volume I: Who Pays How Much How Soon? **AA** Rand. **SR** Rand Report: R-3050-ICJ; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 42. **PR** No Charge. **JE** 921, 635. **KW** Automobile Accident Compensation. No-Fault System. Tort System.

AB This study uses statistical methods to compare state automobile accident compensation systems by examining how likely an accident victim is to be paid, and the amount and timing of his payment. The study analyzes how various aspects of the tort system and of the no-fault systems, where present, affect these outcomes. Among its findings were (1) victims in no-fault states more often collect from first-party automobile insurance than victims in other states; (2) victims in no-fault states are more likely to receive some payment; and (3) there is more consistency in payments in no-fault states in that the total amount of compensation a victim receives for a given economic loss varies less.

Romer, Christina P.

PD July 1986. **TI** The Prewar Business Cycle Reconsidered: New Estimates of Gross National Product, 1869-1918. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 1969; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 131, 221, 042. **KW** Business Cycle. Gross National Product. Pre World War I Era.

AB This paper shows that the existing estimates of prewar gross national product exaggerate the size of cyclical fluctuations. The source of the exaggeration is that the original Kuznets estimates are based on the assumption that GNP moves one-for-one with commodity output valued at producer prices. New estimates of GNP for 1869-1918 are derived using the estimated aggregate relationship between GNP and commodity output for the interwar and postwar eras. The new estimates of GNP indicate that the business cycle is only slightly more severe in the pre-World War I era than in the post-World War II era.

Romer, Paul M.

TI Ski-Lift Pricing with an Application to the Labor Market. **AU** Barro, Robert J.; Romer, Paul M.

TI Ski-Lift Pricing, with an Application to the Labor Market. AU Barro, Robert J.; Romer, Paul M.

Ross, Judith Wilson

TI A Short Guide to Electric Utility Load Forecasting. AU Mitchell, Bridger M.; Ross, Judith Wilson; Park, Rolla Edward.

Rubinfeld, Daniel L.

TI The Welfare Implications of Costly Litigation in the Theory of Liability. AU Polinsky, A. Mitchell; Rubinfeld, Daniel L.

Rufolo, Anthony M.

TI Human Capital and Occupational Choice: A Reformulation. AU Paglin, Morton; Rufolo, Anthony M.

Rustichini, Aldo

PD September 22, 1986. TI A Counterexample and an Exact Version of Fatou's Lemma in Infinite Dimension. AA Department of Mathematics, University of Minnesota. SR University of Minnesota Center for Economic Research Discussion Paper: 235; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. PG 10. PR No Charge. JE 213, 021. KW General Equilibrium. Fatou's Lemma. Continuum of Agents.

AB An example is presented to show that approximate versions of Fatou's Lemma in infinite dimension cannot be improved, and a sufficient condition for an exact version is provided.

Ruttan, Vernon W.

TI A Comparative Analysis of Agricultural Productivity Trends in Centrally Planned Countries. AU Wong, Lung Fai; Ruttan, Vernon W.

TI The Role of Demand and Supply in the Generation and Diffusion of Technical Change. AU Thirtle, Colin G.; Ruttan, Vernon W.

Ruud, Paul A.

TI Specifying and Testing Econometric Models for Rank-Ordered Data With An Application to the Demand for Mobile and Portable Telephones. AU Hausman, Jerry A.; Ruud, Paul A.

Sachs, Horst

TI Monotone Path Systems in Simple Regions. AU Cameron, Kathie; Sachs, Horst.

Sadoulet, Elisabeth

TI The Conditions for Harmony Between Third-World Agricultural Development and United States Farm Exports. AU de Janvry, Alain; Sadoulet, Elisabeth.

TI Agricultural Growth in Developing Countries and Agricultural Imports: Econometric and General Equilibrium Analyses. AU de Janvry, Alain; Sadoulet, Elisabeth.

Saffer, Henry

PD July 1986. TI Endogenous Drinking Age Laws and Highway Mortality Rates of Young Drivers. AU Saffer, Henry; Grossman, Michael. AA Saffer: Kean College of New Jersey. Grossman: City University of New York. SR National Bureau of Economic Research Working Paper: 1982; National Bureau of Economic Research 1050 Massachusetts Avenue Cambridge MA 02138. PR $2.00. JE 910, 841. KW Drinking Age Laws. Highway Mortality. Liquor Tax.

AB This paper presents estimates of the effects of the drinking age and beer taxes on youth motor vehicle mortality. The data set employed is a time series, from 1975 to 1981, of cross sections of the 48 contiguous states. Separate regressions for 15 to 17 year olds, 18 to 20 year olds and 21 to 24 year olds are presented. A simultaneous estimation model is used to account for the endogeneity of the drinking age. The results show that during the sample period an increase in the drinking age to 21, which is approximately 8 percent, would have reduced mortality in the 18 to 20 year old group by approximately 14 percent. Also a 100 percent increase in the real beer tax, which is approximately $1.50 per case, would reduce highway mortality of 18 to 20 year olds by about 19 percent. This increase in the beer tax would also reduce mortality by about 8 percent for 15 to 17 year olds and by about 18 percent for the 21 to 24 year olds.

Safra, Z.

PD May 1986. TI Efficient Sets without Expected Utility Hypothesis with an Application to Optimal Insurance Policies. AU Safra, Z.; Zilcha, I. AA Department of Economics, Tel-Aviv University. SR Tel Aviv Foerder Institute for Economic Research Working Paper: 21-86; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. PG 18. PR No Charge. JE 022, 026, 521. KW Decision Under Risk. Expected Utility. Efficient Sets. Insurance Policy.

AB It is shown that the efficient subset of a given set of random variables may differ from the common efficient set if one assumes non-expected utility functionals and a weak notion of risk aversion. The exact form of the new efficient set is characterized and then applied to the problem of optimal insurance policies. Lastly, it is shown that the existence of upper limit average policies can be explained by using the weak notion of risk aversion that is defined in the paper.

Sargent, Thomas J.

TI Convergence of Least Squares Learning Mechanisms in Self Referencial Linear Stochastic Models. AU Marcet, Albert; Sargent, Thomas J.

Sarma, Syam

TI Projected Use, Emissions, And Banks of Potential Ozone-Depleting Substances. AU Quinn, Timothy H.; Wolf, Kathleen A.; Moos, William E.; Hammitt, James K.; Chesnutt, Thomas W.; Sarma, Syam.

Sartor, Nicola

TI Tax Push Inflation In A Unionised Labour Market. AU Malcomson, James M.; Sartor, Nicola.

Scharfstein, David

TI Testing in Models of Asymmetric Information. **AU** Nalebuff, Barry; Scharfstein, David.

Scheffman, David T.

PD July 1986. **TI** A Theory of Input Exchange Agreements. **AU** Scheffman, David T.; Holt, Charles A. **AA** Bureau of Economics, Federal Trade Commission. **SR** Federal Trade Commission Bureau of Economics Working Paper: 147; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Avenue Northwest, Washington, D.C. 20580. **PG** 36. **PR** No Charge. **JE** 022, 610. **KW** Exchange Agreements. Antitrust.

AB In the United States, substantial quantities of producer goods are often transacted via exchange agreements, rather than through spot markets, even when spot markets for the goods exist. An exchange is a simultaneous buy/sell arrangement generally involving equal amounts of each commodity. Joyce (1983) notes that markets in which exchanges are observed are characterised by the presence of vertical integration, high concentration in the input markets, and the presence of small non-integrated downstream producers. In this paper we consider the effects of input exchanges in models of markets with these characteristics. This paper provides a rationale for the use of input exchange agreements and an analysis of the effects of such agreements on competition and economic efficiency. Section I presents the common structure of the models to be analysed. Section II considers the situation in which all input transfers are made by exchange, and Section III contains an analysis of the equilibrium in the output and input markets in the absence of exchanges. In Section IV, the performance of markets with exchange agreements is compared with the performance of markets without exchange agreements. Finally, the analysis developed in Section V allows inputs to be acquired by negotiating bilateral exchanges and/or by engaging in unilateral market purchases of inputs. The concluding section contains a discussion of the antitrust implications of our analysis.

Schmeidler, D.

TI Maxmin Expected Utility with a Non-Unique Prior. **AU** Gilboa, I.; Schmeidler, D.

Schmitz, Andrew

TI Government Intervention in United States Agriculture and Manufacturing. **AU** Babcock, Bruce; Allen, Roy E.; Schmitz, Andrew.

Schwartz, William B.

TI Are Fee-For-Service Costs Increasing Faster Than HMO Costs? **AU** Newhouse, Joseph P.; Schwartz, William B.; Williams, Albert P.; Witsberger, Christina.

Schweizer, Urs

PD September 1986. **TI** Litigation and Settlement II: Stability and Other Criteria. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 76; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 26. **PR** No Charge. **JE** 026, 916. **KW** Game Theory. Game of Litigation and Settlement. Stability.

AB The game of litigation and settlement introduced by Schweizer (1986) is taken as an example to explore the cutting power of stability and other tests. Stability and universal divinity which, in the present game, coincides with the test based on "never a weak best response" lead to some essentially unique outcomes. The tests based on dominance and the intuitive criterion, however, are shown to rule out none of the sequential equilibrium outcomes. Divinity, finally, has some cutting power but still allows a substantial variety of outcomes to pass.

Sedlacek, Guilherme

TI Intertemporal Preferences and Labor Supply. **AU** Hotz, V. Joseph; Kydland, Finn E.; Sedlacek, Guilherme.

Segal, Uzi

PD August 1986. **TI** Firm Size and Optimal Growth Rates. **AA** Department of Economics, University of Toronto. **SR** University of California at Los Angeles Department of Economics Working Paper: 380; Department of Economics, University of California at Los Angeles, Los Angeles, CA 90024. **PG** 19. **PR** $2.50. **JE** 611. **KW** Branching Processes. Dynamic Programming. Rate of Growth of Firms.

AB This paper presents a theoretical model in which, due to bankruptcy costs, the rate of growth of small firms tends to be higher and more variable than that of larger firms. This model also predicts that for large firms the rate of growth is fixed, as claimed by Gibart's Law.

Selten, Reinhard

PD September 1985. **TI** A Commodity Flow Model of Flexible Exchange Rates with Overshooting in Response to Inflation. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A 155; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 37. **PR** No Charge. **JE** 431, 311, 321, 411. **KW** Exchange Rate Determination. Overshooting. Asset Market. International Trade.

AB The model presented in this paper provides a simple framework for the analysis of the effects of changes of monetary and fiscal policy. One obtains clear answers to questions concerning the sign of the influences on the important variables of the system. The main result may be summarised in a loose way as follows: An increase of inflation works in the direction of undervaluation and additional debt financed government spending is an influence towards overvaluation.

Shaanan, J.

TI The Dynamics of Market Structure. **AU** Geroski, P. A.; Masson, R. T.; Shaanan, J.

Shack, Marquez Janice

TI Accepted Wages: Examining Transitions from Unemployment and Out of the Labor Force. **AU** Horvath, Francis; Shack, Marquez Janice.

PD August 1986. **TI** Some Direct Evidence on the Importance of Borrowing Constraints to the Labor Force

Participation of Married Women. **AU** Shack, Marquez Janice; Wascher, William L. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper: 63; Economic Activity Section, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 13. **PR** No Charge. **JE** 315, 813, 824. **KW** Labor Supply. Borrowing Restrictions. Credit Markets.

AB In this paper, we examine the link between credit availability and the labor supply decisions of married women. In particular, we use data from the Survey of Consumer Finance to test the role of some direct measures of borrowing constraints in a standard labor force participation equation. Although imperfect capital markets may alter the options available to households in a life-cycle context, our results suggest that borrowing constraints are of little importance to the labor force participation decisions of married women.

Shafer, Wayne J.

TI Allocation of Aggregate and Individual Risks through Financial Markets. **AU** Magill, Michael J. P.; Shafer, Wayne J.

Shapiro, Carl

TI Counterfeit-Product Trade. **AU** Grossman, Gene M.; Shapiro, Carl.

Shiller, Robert J.

TI Speculative Behavior of Institutional Investors. **AU** Pound, John; Shiller, Robert J.

Shishko, Robert

PD December 1984. **TI** AURA Applications Division-Level Transportation and Selected Spares Issues. **AU** Shishko, Robert; Kamins, Milton. **AA** Rand. **SR** Rand Report: R-3156-MIL; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 84. **PR** No Charge. **JE** 114. **KW** Armed Forces. Resource Allocation. Army Unit Readiness/Sustainability Assessor.

AB AURA (Army Unit Readiness/Sustainability Assessor) is a Monte Carlo event simulation model that permits decisionmakers to examine the implications of alternative resource levels on the output of combined arms units, and to assess a broad range of theater-wide resource allocation policies. This report describes AURA applications to the mission-generation capabilities of combined arms units. Among the applications described are: (1) measurement of the readiness and sustainability of a combined arms brigade supported by two artillery battalions; (2) investigation of the potential of increased stocks of certain Direct Exchange (DX) items to increase sustainability; and (3) examination of the effects of augmenting unit prescribed load lists with certain mandatory spares. Among the conclusions supported by these AURA simulations are: Ammunition material handling equipment at the Division Support Command needs to be increased; tank sustainability can be increased by having higher stocks of certain DX items; and under present stockage policies, cannibalization will be an important source of spares in wartime.

PD March 1985. **TI** The Overlooked Dimensions of the Conventional Balance in Europe. **AA** Rand. **SR** Rand Paper: P-7079; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 8. **PR** No Charge. **JE** 114. **KW** Military Balance. Europe.

AB Traditional views of the conventional military balance in the Central Region emphasize a comparison of the number of major weapon systems each side has in its inventory, or of the number of military personnel or formations. These traditional statements of the balance dramatically tend to favor the Warsaw Pact. In this paper, the author addresses some of the overlooked dimensions in the conventional military balance: (1) the reliability of allies, (2) the role of surprise, (3) the contribution of logistic support, and (4) the role of command-control-communication and electronic warfare. Of these four, the first two might be called scenario-related variables, while the last two are generally called "force multipliers." The effect each might have in wartime is uncertain and not easily factored into the balance analytically. The author gives a brief indication of how one might attempt to do so, or what results are generally obtained when those attempts have been made.

Silber, William L.

TI Pioneering Products: Some Empirical Evidence from Futures Markets. **AU** Black, Deborah G.; Silber, William L.

Sims, Christopher A.

PD September 22, 1986. **TI** Bayesmth: A Program for Multivariate Bayesian Interpolation. **AA** Department of Economics, University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 234; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 10. **PR** No Charge. **JE** 214. **KW** Interpolation. Bayesian Interpolation. Numerical Optimization.

AB An algorithm is presented for interpolating a function of several variables, using a stochastic process model for the function and Bayesian methods to generate the interpolation. A Fortran program which uses the algorithm as an aid to nonlinear function maximization is described. The program is likely to be useful in applications where function evaluations are computationally expensive.

Singleton, Kenneth J.

TI A Time Series Analysis of Representative Agent Models of Consumption and Leisure Choice Under Uncertainty. **AU** Eichenbaum, Martin; Hansen, Lars Peter; Singleton, Kenneth J.

Sirbu, Marvin A.

TI Telecommunications Alternatives For Federal Users Market Trends and Decision Making Criteria. **AU** Johnson, Leland L.; Sirbu, Marvin A.; Mitchell, Bridger M.

Smith, James P.

PD July 1985. **TI** The Wage Gap and Comparable

Worth. **AA** Rand. **SR** Rand Paper: P-7126; The Rand Corporation, 1700 Main Street, P. O. Box 2138, Santa Monica, CA 90406-2138. **PG** 9. **PR** No Charge. **JE** 813, 824, 826, 917. **KW** Comparable Worth. Women's Wages. Wage gap.

AB This paper reviews the reasons that women's wages have remained at approximately 60 percent of men's wages, discusses the outlook for future growth of women's wages, and considers the possible impact of "comparable worth" legislation. The author suggests that the composition of the female work force, whose new entrants and reentrants have predominantly been women with relatively little labor market experience and lower than average education, have held down the average wage of all working women, disguising what would otherwise have been an upward trend in women's wages. He also reports that, in the period between 1920 and 1980, women's wages grew 20 percent faster than men's wages, and projects that they will rise at least 15 percent faster than men's over the next twenty years. Based on these projections, he concludes that other government actions, such as enforcement of Title VII and the Equal Pay Act, would be more effective than "comparable worth" legislation in improving women's opportunities in the labor market.

PD August 1985. **TI** Black Poverty: Past and Future. **AA** Rand. **SR** Rand Paper: P-7129; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 4. **PR** No Charge. **JE** 917, 914, 912. **KW** Black Poverty. Black Education.

AB This paper was originally published as an Op-Ed piece in the 'Los Angeles Times on July 25, 1985. It reviews the progress that has been made in reducing poverty among black Americans since 1940. The author suggests that among the reasons for the dramatic emergence of the black middle class in recent years were the movement of blacks from Southern agricultural areas to Northern cities, the civil rights activism of the 1960s, and the "safety net" of federal programs. But the dominant explanation is the improvement in black education. Further long-term reductions in black poverty depend on improving the quality of black schools, an issue that is not being addressed by the renewed interest in excellence in schools.

PD February 1986. **TI** Closing the Gap: Forty Years of Economic Progress for Blacks. **AU** Smith, James P.; Welch, Finis R. **AA** Rand. **SR** Rand Report: R-3330-DOL; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 163. **PR** No Charge. **JE** 910, 841. **KW** Economic Progress For Blacks. Minorities. Education. Migration. Affirmative Action.

AB This report undertakes a reassessment of the economic progress of American blacks over the past 40 years, drawing on the 1980 Census micro data file and the newly released micro data files for the 1940 and 1950 Censuses. Its most basic concern is whether the economic lot of black men has improved significantly in the 40-year period, but it also considers whether economic progress has touched all parts of the black community. Finally, it attempts to isolate the underlying causes of black economic progress by considering the roles played by education, migration to the north, and affirmative action.

Smith, Richard J.

PD September 1986. **TI** Alternative Asymptotically Optimal Tests and their Application to Dynamic Specification. **AA** Department of Econometrics and Social Statistics, University of Manchester. **SR** Monash Department of Econometrics and Operations Research Working Paper: 13/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 29. **PR** No Charge. **JE** 211, 212. **KW** C(a) Test. Lagrance Multiplier Test. Likelihood Ratio Test. Wald Test. Common Factors. Dynamic Regression Model.

AB A method is presented for generating test statistics which share the same first order asymptotic optimality properties of the classical Lagrange multiplier, likelihood ratio and Wald statistics. Generalising Neyman's (1959) work, the linearised classical statistic is derived to test restrictions in implicit function form when the available parameter estimator is consistent and asymptotically normally distributed under the alternative hypothesis; this statistic may prove useful when full maximum likelihood estimation is difficult under both null and alternative hypotheses. By judicious choice of estimator at which to evaluate the statistic, the Wald, Lagrange multiplier and C(a) statistics among others are reproduced; similar statistics for constraint or freedom equation restrictions (or a mixture of both) are also special cases. Testing strategies are briefly discussed for an ordered sequence of hypotheses and for evaluating a single null against several alternative hypotheses. An application is presented for dynamic specification as common factor restrictions in a single equation dynamic regression model with moving average disturbances.

PD September 1986. **TI** Testing the Normality Assumption in Multivariate Simultaneous Limited Dependent Variable Models. **AA** Department of Econometrics and Social Statistics, Manchester University. **SR** Monash Department of Econometrics and Operations Research Working Paper: 14/86; Department of Econometrics and Operations Research, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 26. **PR** No Charge. **JE** 211. **KW** Edgeworth Distribution. Information Matrix Test. C(a) Tests. Simultaneous Equations. Testing For Normality. Limited Dependent Variable Models.

AB A diagnostic for multivariate nonnormality expressed as a multivariate Edgeworth distribution truncated at the fourth order is presented for a multivariate simultaneous equations system in normally distributed latent variables subject to a general censoring scheme. The information matrix test statistic also presented tests for multivariate nonnormality and particular forms of multivariate heteroskedasticity and heterocliticity. Alternative C(a) tests are also suggested.

Sneider, Richard L.

PD January 1985. **TI** The Political and Social Capabilities of North and South Korea for the Long-Term Military Competition. **AA** Rand. **SR** Rand Report: R-3271-NA; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 53. **PR** No Charge. **JE** 114, 121. **KW** North Korea. South Korea. Military Competition. Political and Social

Capabilities. Stability.
AB This report assesses the sociopolitical capabilities of South and North Korea to maintain their military competition through the 1980s. It discusses the various factors making for stability and instability in both Koreas at the present time, projects these factors into the near-term future, and estimates the effects of possible increases in defense efforts. Finally, it examines the sociopolitical effects of possible changes in the military posture of the Republic of Korea. It finds that any increase in the South Korean defense effort could further complicate the dilemma facing the North regarding resource allocation between defense and the economy. It might force a reconsideration of the North's highly belligerent military posture or provoke consideration of a preemptive attack.

Snower, Dennis J.

TI Union Activity and Economic Resilience. **AU** Lindbeck, Assar; Snower, Dennis J.

Solon, Gary

PD June 1986. **TI** Bias in Longitudinal Estimation of Wage Gaps. **AA** University of Michigan. **SR** National Bureau of Economic Research Technical Paper: 58; National Bureau of Economic Research, 1050 Massachussets Avenue, Cambridge, MA 02138. **PR** No Charge. **JE** 824, 211. **KW** Wage Gaps. Bias in Longitudinal Estimation. Self-Selection Bias.
AB Cross-sectional regression analyses of wage gaps may be biased by omission of unobserved worker characteristics. Recent studies therefore have used longitudinal data to "difference out" the effects of such variables. This paper, however, shows that self-selection of job changers may cause longitudinal estimation of wage gaps to be inconsistent.

Spulber, Daniel F.

PD July 1985. **TI** Negligence, Contributory Negligence and Pre-Trial Settlement Negotiation. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8511; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 41. **PR** No Charge. **JE** 026, 916. **KW** Pretrial Settlements. Negligence. Bargaining Game. Trials.
AB Pre-trial settlement negotiation between a potential plaintiff and defendant is studied as a direct revelation game with bilateral asymmetric information. The plaintiff and defendant each have private information about their respective negligence. The paper characterizes the class of solutions to the direct revelation bargaining game which are interim incentive efficient. The outcome of bargaining is an expected settlement level and a probability of going to trial. Comparative statics results are presented which hold for the class of efficient solutions. The effects of negligence levels on expected settlements and the probability of going to trial are examined. Also, the effects of the level of damage awards and alternative rules for the allocation of court costs are considered. Two liability rules are considered, the negligence-contributory negligence rule and the dual contributory negligence rule. It is shown that the liability rule may affect the characteristics of the bargaining equilibrium with regards to strategies and whether or not pooling is observed.

TI Inflation, Menu Costs and Endogenous Price Variability. **AU** Caplin, Andrew; Spulber, Daniel F.

Stamoulis, Kostas G.

TI Macroeconomic Linkages, Taxes, and Subsidies in the United States Agricultural Sector. **AU** Rausser, Gordon C.; Chalfant, James A.; Love, H. Alan; Stamoulis, Kostas G.

Stanton, Richard E.

TI Modeling the Contribution of Maintenance Manpower to Readiness and Sustainability. **AU** Gots, Glenn A.; Stanton, Richard E.

Stiglitz, Joseph E.

PD July 1986. **TI** The Wage-Productivity Hypothesis: Its Economic Consequences and Policy Implications for L.D.C.s. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 1976; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 121, 820. **KW** LDC. Wage-Productivity Hypothesis. Productivity.
AB This paper explores the implications for less developed countries of the hypothesis that workers' productivity depends on the wages they receive. In particular, we show that this hypothesis may explain the high urban wages and unemployment found in many such countries. The market equilibrium is shown not to be Pareto efficient. If the government could not control urban-rural migration, but could control wages and urban employment, it would, in general, set wages and employment levels differently. The sources of inefficiency are identified. The (constrained) Pareto optimal policy can be implemented via taxes and subsidies; but two instruments (both specific and ad valorem wage tax/subsidies) are required. More generally, policy changes will affect both the urban wage and the level of unemployment, and these consequences need to be taken into account, both in the determination of shadow wages to be used in cost benefit analysis and in the analysis of the incidence of any set of taxes and subsidies. The shadow price of labor may differ markedly from what it would be if wages were arbitrarily fixed and there were no migration. In particular, in the special case of the Harris-Todaro migration model, with fixed rural wages and productivity depending only on the absolute wage received, the shadow wage is the market wage, regardless of the relative evaluation of current and future consumption. Shadow prices under other specifications of the wage-productivity relationship are analyzed.

Stuart, Charles

TI Issues in the Measurement and Interpretation of Effective Tax Rates. **AU** Bradford, David F.; Stuart, Charles.

TI Issues in the Measurement and Interpretation of Effective Tax Rates. **AU** Bradford, David; Stuart, Charles.

Summers, Lawrence H.

TI Reflections on the Inter-Industry Wage Structure. **AU** Krueger, Alan B.; Summers, Lawrence H.

Svoronos, Alexander

TI Price Competition in a Non-Homogeneous Space. **AU** Martines, Giralt Xavier; Garella, Paolo; Svoronos, Alexander.

Swan, Peter L.

TI The Production of Children as Claims on the State: A Comprehensive Labor Market Approach to Illegitimacy in the United States, 1960-1980. **AU** Bernstam, Mikhail S.; Swan, Peter L.

TI The State as the Marriage Partner of Last Resort: New Findings on Minimum Wage, Youth Joblessness, Welfare, and Single Motherhood in the United States, 1960-1980. **AU** Bernstam, Mikhail S.; Swan, Peter L.

Symons, James S. V.

TI The Phillips Curve is a Real Wage Equation. **AU** Newell, Andrew; Symons, James S. V.

Szafarz, A.

TI Identification and Consistent Estimation of Multivariate Linear Models with Rational Expectations of Current Variables. **AU** Brose, L.; Gourieroux, Christian; Szafarz, A.

Szreter, Simon

PD July 1986. **TI** The Importance of Social Intervention in Britain's Mortality Decline c. 1850-1914: A Re-Interpretation. **AA** Gonville and Caius College, Cambridge. **SR** Centre for Economic Policy Research Discussion Paper: 121; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 37. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 044, 225, 841, 910, 931. **KW** Mortality Decline. Social Intervention. Britain.

AB The current orthodox interpretation of the causes of mortality decline in Britain during the 19th and early 20th centuries is derived from the primary research work of Professor T. McKeown and his associates. This interpretation emphasises the role of increases in per capita nutritional consumption. This paper questions the coherence of the McKeown interpretation through a critical re-examination of the supporting evidence and arguments presented by McKeown et al. An alternative interpretation is then offered to account for the variations in mortality experienced between 1850 and 1914. This interpretation places emphasis on the importance of preventive public health measures and the significance of local authorities' responses to the challenge of urban congestion. The paper concludes with the suggestion that research should be encouraged into the relationship between such local initiatives and the pattern of local health in this period.

Tan, Hong W.

TI The Retention of High-Quality Personnel in the United States Armed Forces. **AU** Ward, Michael P.; Tan, Hong W.

PD May 1985. **TI** Forecasting the Wages of Young Men: The Effects of Cohort Size. **AU** Tan, Hong W.; Ward, Michael P. **AA** Rand. **SR** Rand Report: R-3115-ARMY; Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 67. **PR** No Charge. **JE** 824, 132. **KW** Civilian Wage Structure Forecasts. Military Compensation Policy.

AB In this study, the authors develop forecasts of the civilian wage structure over the next two decades for a variety of different scenarios. They focus on how the wage structure will change as the demographic trend reverses itself, i.e., as the smaller post-baby-boom birth cohorts enter the labor market in the 1980s and 1990s. Section II of the report describes the survey data used to create a working file for the analysis. Based on this file, the authors paint a broad overview of how cohort size and relative wages have changed over the 1967-1980 period. Section III discusses the wage model used and highlights the main empirical results. The assumptions and approach used to forecast wages are detailed in Section IV. Section V extends the wage model to investigate two alternative explanations for the observed decline in youth wages. The last section concludes with a summary of the main findings and their implications for military compensation policy.

TI Private Sector Training Who Gets It And What Are Its Effects? **AU** Lillard, Lee A.; Tan, Hong W.

Tesfatsion, Leigh

PD July 1985. **TI** The Inconsistency of Benevolent Government Economies. **AA** Department of Economics, University of Southern California. **SR** University of Southern California Modelling-Research Group Working Paper: M8515; Department of Economics, University of Southern California, University Park, Los Angeles, CA 90089-0152. **PG** 43. **PR** No Charge. **JE** 021. **KW** Consistent Equilibrium Paths. Benevolent Government Economies.

AB A dynamic economy is said to exhibit inconsistency if the socially optimal path, generated today for future periods, is no longer optimal to follow when these future periods become the present. The present paper establishes necessary and sufficient conditions for consistency for a general class of dynamic Walrasian benevolent government economies. It is shown that Pareto-optimal paths for such economies can be supported as optimal competitive equilibrium paths only if consistency prevails, but there exist consistent optimal competitive equilibrium paths which are not Pareto-optimal.

TI Nonlocal Comparative Statics, Automatic Derivatives, and Nonlinear Filtering: Recent Developments at University of Southern California. **AU** Kalaba, Robert; Tesfatsion, Leigh.

TI Automatic Differentiation of Functions of Derivatives. **AU** Kalaba, Robert; Tesfatsion, Leigh.

Thirtle, Colin G.

PD October 9, 1986. **TI** The Role of Demand and Supply in the Generation and Diffusion of Technical Change. **AU** Thirtle, Colin G.; Ruttan, Vernon W. **AA** Thirtle: Department of Agricultural Economics, University of Manchester. Ruttan: Department of Agricultural and Applied Economics, University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 86-5; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 220. **PR** No Charge. **JE** 621. **KW** Induced Technology. Research and Development. Diffusion of Technology. Invention.

AB This paper reviews and assesses the literature on the impact of economic forces on the rate and direction of technical change. In the first section evidence on the impact of economic forces on invention is evaluated. In a second section the theory and empirical evidence on induced technical change is reviewed. A third section examines the linkages between invention and diffusion of new technology. When either factor-factor or factor-product price relationships are distorted the innovative behavior of both public and private research and development organizations will be biased. The impact of bias in the allocation of research and development resources carries particularly serious economic consequences because of the long time lag between the allocation of resources to research and the impact of the new technology on production.

Thorpe, Kenneth E.

PD June 1985. **TI** Cable Television, Market Power and Regulation. **AA** Rand. **SR** Rand Paper: P-7095; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 98. **PR** No Charge. **JE** 613, 635. **KW** Telecommunications. Government Regulation. Cable Television.

AB This paper endeavors to provide policy-relevant information that may be used in the continuing public debate regarding the "appropriate" government role in the expanding telecommunications industry. It argues that the debate over the need to regulate cable operators has been driven by the mistaken assumption that the distribution of television programming is a private good; that the debate has overlooked actual pricing behavior in the industry; and that policymakers have not recognized the policy implications resulting from the sunk cost nature of investment made by cable operators. An empirical section evaluates the effectiveness of current state and local regulations, and suggests that they do not appreciably affect the price-cost margins of cable operators, whereas competition from other sources of video programming does have an impact on the market power of cable firms.

Tirole, Jean

TI The Dynamics of Incentive Contracts. **AU** Laffont, Jean Jacques; Tirole, Jean.

Torsten, Persson

TI Exchange Rate Policy, Wage Formation, and Credibility. **AU** Horn, Henrik; Torsten, Persson.

Tryon, Ralph

TI An Empirical Analysis of Policy Coordination in the United States, Japan and Europe. **AU** Edison, Hali J.; Tryon, Ralph.

Tufekci, Suleyman

TI A Branch and Bound Algorithm for a Single-Item Multi-Source Dynamic Lot Sizing Problem With Capacity Constraints. **AU** Erenguc, S. Selcuk; Tufekci, Suleyman.

Turner, Joan B.

TI Research Plan For The Preferred Provider Organization Study. **AU** Ginsberg, Paul B.; Hosek, Susan D.; Duan, Naihua; Luft, Harold S.; Marquis, Susan; Turner, Joan B.

Turnovsky, Stephen J.

PD July 1986. **TI** Supply Shocks and Optimal Monetary Policy. **AA** University of Illinois. **SR** National Bureau of Economic Research Working Paper: 1988; National Bureau of Economic Research 1050 Massachusetts Avenue, Cambridge, MA 02138. **PR** $2.00. **JE** 023, 311. **KW** Supply Shocks. Monetary Policy.

AB This paper demonstrates that if current shocks are observed instantaneously, output can be stabilized perfectly for completely general supply disturbances, using simple monetary rules based only on: (i) the current shock, (ii) the previous forecast of the current shock, (iii) the forecast for just one period ahead. The optimal rule can be expressed in an infinite number of ways and various alternatives are considered. With optimal wage indexation, the monetary rule is even simpler. If current shocks are not observed instantaneously, but are inferred from other signals, the optimal rules are of the same form, with the current perceived disturbance replacing the actual.

Tyson, Laura D.

TI Computable General Equilibrium (CGE) Models for Socialist Economies. **AU** Kis, Peter; Robinson, Sherman; Tyson, Laura D.

PD June 2, 1986. **TI** Conditionality and Adjustment in Hungary and Yugoslavia. **AU** Tyson, Laura; Robinson, Sherman; Woods, Leyla. **AA** Tyson: Department of Economics, University of California, Berkeley. Robinson: Department of Agricultural and Resource Economics, University of California, Berkeley. Woods: Department of Commerce, Washington, D.C. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 416; 207 Giannini Hall, University of California, Berkeley, CA 94720. **PG** 54 p. **PR** $10.80. **JE** 432, 124, 443. **KW** Conditionality. Adjustment Programs. International Finance. Balance-of-Payments. Exchange Rates. International Monetary Fund. International Loans. Hungary. Yugoslavia.

AB This paper examines the influence of the International Monetary Fund (IMF) on the adjustment efforts of Yugoslavia and Hungary during the 1980-1984 period. Both countries received IMF and World Bank loans during this period and both benefited from the implicit "seal of approval" associated with such loans in their negotiations with private lenders. In both countries, access to IMF lending depended on the design of adjustment programs incorporating explicit conditions of performance or "conditionality" that had to be met if lending was to continue. Such conditionality is always a part of IMF lending and raises a number of questions that we pursue in this paper. First, what were the basic objectives of the adjustment programs, and did the forms of conditionality hammered out in IMF negotiations with country authorities support or impede these objectives? Second, did the forms of conditionality chosen reflect the unique economic systems of Hungary and Yugoslavia or were they typical of conditionality programs designed for market economies? Finally, did the involvement of the IMF actually make any difference to what happened? In particular, what were the effects of IMF involvement on the policies chosen, on the speed of adjustment, and on actual economic performance?

Valdez, Robert Otto Burciaga

PD March 1986. **TI** The Effects of Cost Sharing on the Health of Children. **AA** Rand. **SR** Rand Report: R-3270-HHS; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 128. **PR** No Charge. **JE** 913. **KW** Cost Sharing. Health of Children. Free Health Care. Coinsurance.

AB Do children whose families bear a percentage of their health care costs reduce their use of ambulatory care compared with those families who receive free care? If so, does the reduction affect their health? To answer these questions, the author randomly assigned (for a period of three or five years) 1844 children aged 0-13 to one of 14 insurance plans. The plans differed in the percentage of their medical bills that families paid. One plan provided free care. The others required up to 95 percent coinsurance subject to a $1000 maximum. Children whose families paid a percentage of costs reduced use by up to a third. For the typical child in the study, this reduction caused no significant difference in either parental perceptions of a child's health or in physiologic measures of health. Confidence intervals are sufficiently narrow for most measures to rule out the possibility that large true differences went undetected. Nor were statistically significant differences observed for children at risk of disease due to prior conditions. Wider confidence intervals for these comparisons, however, mean that clinically meaningful differences, if present, could have been undetected in certain subgroups.

van der Ploeg, Frederick

PD June 1986. **TI** Capital Accumulation, Inflation and Long-Run Conflict in International Objectives. **AA** Department of Economics, LSE. **SR** Centre for Economic Policy Research Discussion Paper: 115; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 35. **PR** 1 pound sterling ($2.00) individuals; 1.50 pound sterling ($3.00) companies, libraries, institutions. **JE** 023, 134, 430, 113. **KW** Interdependence. Policy Coordination. Pre-Commitment. Credibility. Monetary Policies. Capital Accumulation.

AB It is shown that, when there is a genuine long-run trade-off between inflation and output, coordination under pre-commitment yields substantial improvements in economic welfare. The analysis is conducted within the context of a two-country model with capital accumulation, immobile labour, perfect capital mobility and floating exchange rates. If the home government increases its monetary growth rate, it increases home inflation, reduces the world real interest rate and therefore boosts both home and foreign capital accumulation. The foreign country thus enjoys a gain in output without suffering from higher inflation. Competitive policies lead to monetary policies which are too tight and levels of activity which are too low, since each country attempts to be a "free rider". Coordination leads to a lower world real interest rate and higher welfare. Pre-commitment is necessary, for the success of coordinated policies, however. Otherwise each government has an incentive to renege and levy a "surprise" inflation tax. In the absence of binding contracts or reputation effects, both cooperation and competitive policy formulation lead to excessive monetary growth rates and higher levels of activity than under coordination or competition with pre-commitment. Coordination can be futile, since it exacerbates the lack of credibility perceived by the private sectors.

PD August 1986. **TI** Capital Accumulation, Inflation and Long-Run Conflict in International Objectives. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 250; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 35. **PR** No Charge. **JE** 023, 113, 431, 432. **KW** Interdependent Economies. Policy Coordination. Pre-Commitment. Credibility. Monetary Policies.

AB It is shown that, when there is a genuine long-run trade-off between inflation and output, coordination under pre-commitment yields substantial improvements in economic welfare. The analysis is conducted within the context of a two-country model with capital accumulation, immobile labour, perfect capital mobility and floating exchange rates. If the home government increases its monetary growth rate, it increases home inflation, reduces the world real interest rate and therefore boosts both home and foreign capital accumulation. The foreign country thus enjoys a gain in output without suffering from higher inflation. Competitive policies lead to too tight monetary policies and too low levels of activity, since each country prefers to be a "free rider". Coordination leads to a lower world real interest rate and higher welfare. Pre-commitment is necessary, since otherwise each government has an incentive to renege and levy a "surprise" inflation tax. Both cooperation and competitive policy formulation lead, in the absence of binding contracts or reputational forces, to excessive monetary growth rates and higher levels of activity than under coordination or competition with pre-commitment. Coordination can be futile, since it exacerbates the lack of credibility perceived by the private sectors.

Van, Winden Frans

PD September 2, 1986. **TI** Man In The Public Sector. **AA** California Institute of Technology; University of Amsterdam. **SR** Caltech Social Science Working Paper: Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 48. **PR** No Charge. **JE** 025, 020. **KW** Interest Functions. Utility Theory. Public-Private Sector Interaction.

AB This paper addresses the question of how to model government behavior. The central thought is that in principle the same behavioral model should apply to the behavior of individuals in the private sector as well as the public sector. The paper starts, therefore, with an outline of the contours of a general model of individual behavior. Use is thereby made of the so-called interest function approach that I developed in On the Interaction Between State and Private Sector (Amsterdam: North-Holland, 1983) and which is somewhat further elaborated in this paper. The model is subsequently applied to the behavior of the individuals that makeup the government organisation, bureaucrats and politicians. The potential importance of the approach is indicated by a short survey of the theoretical and empirical results obtained with it so far.

Vanderbroeck, M.

TI Ordering of Risks and Weighted Compound Distributions. **AU** Kaas, R.; Goovaerts, M. J.; Vanderbroeck, M.

Varian, Hal R.

TI Taxation of Asset Income in the Presence of a World Securities Market. **AU** Gordon, Roger H.; Varian, Hal R.

Venables, Anthony J.

TI Trade Policy with Increasing Returns and Imperfect Competition; Contradictory Results from Competing Assumptions. **AU** Markusen, James R.; Venables, Anthony J.

Vial, Jean Philippe

TI A Polynomial Newton Method for Linear Programming. **AU** de Ghellinck, Guy; Vial, Jean Philippe.

Villa, Pierre

PD 1986. **TI** La Politique Budgetaire Est-Elle Inflationniste? Du Nouveau Dans un Vieux Debat? (Is Fiscal Policy Inflationary? Something New in an Old Debate?). **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8613; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 32. **PR** 20 FF. **JE** 321, 134. **KW** Wage-Price Loop. Inflation. Government Budget Constraint.

AB The unemployment-inflation trade-off in the medium term is described with a supply curve which does not assume the existence of a natural rate of unemployment: prices are determined by firms with a mark-up on wage costs and workers want a certain level of real wage. Inflation is determined, in the medium term, by another relation between production and inflation. This relation describes the transfers due to inflation. It is obtained by combination of the government budget constraint and the money demand. Then we discuss, in an open economy, the inflationary impact of fiscal policies, depending on their mode of financing. The best way of financing depends on the degree of inflationary illusion of private agents and on the parameters of the money demand. These results can be extended in a world with countries of the same size. (Paper in French).

PD March 1986. **TI** Regles de Gestion du Taux d'Interet (Interest Rate Policy as a Stabilisation Tool). **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8609; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 13. **PR** 20 FF. **JE** 133, 311. **KW** Discretionary Rules. Rational Expectations. Intermediate Target. Interest Rate Policy. Targetting.

AB Considering that the interest rate is the only monetary instrument, we characterise the rules for stabilizing prices and output in a rational expectations model with wages' indexation. The optimal rules depend on the relative information of government and private agents. For instance, the interest rate must be positively related to the price level if the government can identify supply and demand shocks. Indexing the interest rate on the inflation rate or on the rate of growth of the money stock leads to hyperinflation or has destabilizing effects on prices. At least, the knowledge of the money stock, whether it gives an information advantage to the government or not, does not lead to simple monotonic rules. Indeed, the sign of the link between the interest rate and the money stock depends on the parameters of the money demand, on the nature of the shocks, on their stochastic characteristics and on the government final targets, prices or output. This proves the danger of money targetting. The rational expectations hypothesis does not globally alter the results of a standard Keynesian model. (Paper in French).

PD July 1986. **TI** Modelisation de la Demande Telephonique (A Model of the Telecommunications Demand). **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8614; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 96. **PR** 25 FF. **JE** 635. **KW** Telecommunications Demand. Disequilibrium Econometrics.

AB The paper studies the telecommunications demand. The first two parts are a survey and critique of French and foreign works. They allow us to draw the importance of externalities (access externality or in other words network effect) and of rationing. In the third part, we estimate on French data the demand for access. It shows that rationing used to increase the demand because agents wanted to file in despite the perceived constraint observed by the waiting delay. Then a complete model of demand for and supply of access is estimated with a disequilibrium method. The estimation shows that income elasticity and price elasticities are respectively fairly high and very high. (Paper in French).

Vohra, Rajib

TI An Extension of the Second Welfare Theorem to Economies with Nonconvexities and Public Goods. **AU** Khan, M. Ali; Vohra, Rajib.

Wadhwani, S.

PD June 1986. **TI** The United Kingdom Capital Stock - New Estimates of Premature Scrapping. **AU** Wadhwani, S.; Wall, M. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 245; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 31. **PR** No Charge. **JE** 226, 522, 641. **KW** Capital. Productivity. Premature Scrapping. Capacity.

AB This paper uses company accounts data to derive direct estimates of scrapping of capital equipment. The C.S.O. has significantly overstated the growth of capital stock over 1974-82, but our estimates suggest that this unrecorded scrapping can only explain 0.3 of the estimated 2 per cent productivity slowdown. The best estimate of the decline in the capital stock over 1979-82 is 2.3 per cent, which is much smaller than other (indirect) estimates, and suggests that a demand expansion should not be hampered by a capacity constraint.

Wall, M.

TI The United Kingdom Capital Stock - New Estimates of Premature Scrapping. **AU** Wadhwani, S.; Wall, M.

Warburton, Peter

TI The Market for Labour in Interwar Britain. **AU** Beenstock, Michael; Warburton, Peter.

Ward, Michael P.

PD February 1985. **TI** The Retention of High-Quality Personnel in the United States Armed Forces. **AU** Ward, Michael P.; Tan, Hong W. **AA** Rand. **SR** Rand Report: R-3117-MIL; Rand Corporation, 1700 Main Street,P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 65. **PR** No Charge. **JE** 114, 810. **KW** Armed Forces. Personnel Retention. Quality Index.

AB This study addresses the question, Does the military retain the best of its first-term recruits? Using data from the 1974 Entry Cohort File developed by the Defense Manpower Data Center, the authors generate an index of job performance that combines entry-level attributes of recruits -- Armed Forces Qualification Test scores and level of education -- with first-term promotion histories. This "quality index" is used to assess the relative importance of these characteristics and other unobserved "ability factors" for evaluating the military's success in retaining high-quality enlisted personnel. The authors find that the military is, in general, successful in retaining high-quality enlisted personnel. Those lost through attrition have the lowest quality. Those who separate at the end of their commitment have about the same quality as those entering the military. The study is a first step toward answering the important policy question of how the military can attract and retain high-quality recruits, and how reenlistment standards should be designed.

TI Forecasting the Wages of Young Men: The Effects of Cohort Size. **AU** Tan, Hong W.; Ward, Michael P.

Wascher, William L.

TI Some Direct Evidence on the Importance of Borrowing Constraints to the Labor Force Participation of Married Women. **AU** Shack, Marques Janice; Wascher, William L.

Watkins, Katherine A.

PD November 1985. **TI** Cooperative Forces: Background, Precedents, and Problems. **AA** Rand. **SR** Rand Note: N-2308-USDP; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 78. **PR** No Charge. **JE** 114. **KW** Cooperative Military Forces. Third World Military Units.

AB This Note was prepared as a background paper for a Rand conference on Cooperative Forces in the Third World, held on March 14-15, 1985. Cooperative Forces are Third World military units operating with a major power to advance mutual interests. The purpose of the Note was to provide conference participants with both a current and a historical context for discussion. The current context was framed by references to the George Shultz-Caspar Weinberger debate on the use of forces. The views of the Secretaries of State and Defense were set out, then used to evaluate the proposed Cooperative Forces. Accounts of mercenary forces in the 18th and 19th centuries, the French Foreign Legion, and British Gurkhas provided the historical context. Comparisons were made between these forces and the proposed Cooperative Forces. Information on United Nations peace-keeping missions, and comparisons of these forces with Cooperative Forces, were included in an Appendix. (See also N-2325-USDP.).

Watson, Maxwell

PD February 1986. **TI** International Capital Markets: Developments and Prospects. **AU** Watson, Maxwell; Mathieson, Donald; Kincaid, Russell; Kalter, Eliot. **AA** International Monetary Fund. **SR** International Monetary Fund Occasional Paper: 43; International Monetary Fund, Washington, D.C. 20431. **PG** 125. **PR** $7.50 ($4.50 to university libraries, faculty, students). **JE** 441. **KW** International Finance. Capital Markets. Debt Restructuring.

AB This paper analyzes recent developments in international financial markets. Particular attention is focused on developments in the debt situation. The paper includes discussion of current trends in restructuring, including multiyear restructurings and banks' monitoring procedures. An entire section is devoted to examining structural changes in major financial markets stemming from recent liberalisation and innovation in international financial markets. Relevant adaptations in bank supervisory practices are also discussed. International Capital Markets will henceforth appear in the International Monetary Fund World Economic and Financial Surveys series.

Weddepohl, C.

PD December 1985. **TI** Supply-Constrained Equilibria in Economies with Indexed Prices. **AA** University of Amsterdam. **SR** University of Amsterdam Actuarial Science and Econometrics Report: 22/85; Faculty of Actuarial Science and Econometrics, University of Amsterdam, Jodenbreestraat 23, 1011 NH Amsterdam, the NETHERLANDS. **PG** 22. **PR** No Charge. **JE** 021, 227, 022. **KW** Equilibrium. Rationing. Indexed Prices. Price Rigidities.

AB The paper gives an existence theorem for existence of equilibrium, particularly supply-constrained equilibrium, with price rigidities, when prices are restricted by index functions, of a general type but excluding circularity of indexes. It uses the concept of a rationing system as a description of all permitted rationing schemes.

Weissenberger, E.

PD January 1985. **TI** Exchange Rates, Interest Rates and Money: An Empirical Investigation. **AU** Weissenberger, E.; Muller, Brockhaus G. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B 11; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 49. **PR** No Charge. **JE** 431, 411, 311. **KW** Exchange Rates. Overshooting. International Trade. Interest Rates.

AB This paper consists of two main parts. In the first part, an unrestricted five-variable vector autoregression (VAR) is estimated and analysed applying Sims's innovation accounting technique. The three bilateral cases of the United States of America and the Federal Republic of Germany (FRG), United States and Switzerland (CH) and the Federal Republic of Germany and Switzerland are studied using monthly data for the period from 1974 to 1984. The five variables in the system, each of which may depend on the history of all the other variables are: money stock (M1), industrial production (IP), consumer price index (CPI), interest rate (R) and exchange rate (X). Employing the VAR we shall examine the Granger causal orderings to be found in the data. Using this representation it is straight-forward to test the often imposed hypothesis of exogenous (with respect to the exchange rate) money and income. Next the moving average representation (see Sims '1980) of the system is used to trace the temporal impact of the innovation in a particular variable on all the variables in the system. We find that some of these responses are quite the opposite to the predictions of the standard type models of the exchange rate. Structural models of the exchange rate imply restrictions on the VAR. In the second part of the paper we look more specifically at some of these restrictions. For example the efficient asset market hypothesis implies that new information is instantaneously reflected in the asset price. The causal connection between the forcing variable (e.g. the money supply) and the exchange rate is then reflected in the contemporaneous correlation between the forcing variable and the innovation in the exchange rate. This implication of the efficient market hypothesis will be tested by analysing the structure of the variance-covariance matrix of the innovations.

Welch, Finis R.

TI Closing the Gap: Forty Years of Economic Progress for Blacks. **AU** Smith, James P.; Welch, Finis R.

West, Kenneth D.

PD July 1986. **TI** Dividend Innovations and Stock Price Volatility. **AA** Woodrow Wilson School, Princeton University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 113; Woodrow Wilson School, Princeton University, Princeton, NJ 08544. **PG** 42. **PR** No Charge. **JE** 521, 313. **KW** Volatility Test. Efficient Markets. Stock Prices. Nonstationarity. Speculative Bubbles.

AB A standard efficient markets model states that a stock price equals the expected present discounted value of its dividends, with a constant discount rate. This is shown to imply that the variance of the innovation in the stock price is smaller than that of a stock price forecast made from a subset of the market's information set. The implication follows even if prices and dividends require differencing to induce stationarity. The relation between the variances appears not to hold for some annual United States stock market data. The rejection of the model is both quantitatively and statistically significant.

White, Halbert

TI Some Invariance and Central Limit Theorems for Dependent Heterogeneous Processes. **AU** Wooldridge, Jeffrey; White, Halbert.

Wickens, M. R.

PD June 1986. **TI** The Estimation of Linear Models With Future Rational Expectation By Efficient and Instrumental Variable Methods. **AA** University of Southampton. **SR** Centre for Economic Policy Research Discussion Paper: 111; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, England. **PG** 65. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 211, 212. **KW** Rational Expectations Models. Estimation. Instrumental Variables. Whiteman's Solution Method.

AB This paper considers the estimation of a number of commonly used single-equation linear models, all of which have rationally expected future explanatory variables. Fully efficient and less efficient instrumental variable estimators are proposed in each case. The choice of estimation method is usually represented as a trade-off between efficiency on the one hand and robustness and computational convenience on the other. It is shown in this paper that there is a more fundamental issue which must influence the choice of estimator, namely the type of solution that the model possesses. The construction of an efficient estimation method depends on whether or not the model has a unique solution and often this will not be known a priori. Preliminary estimation by instrumental variable methods can be used to resolve this question. Various tests are proposed in the paper. Whiteman's solution method is used to determine the types of solution that are possible for each model. It is shown how these solutions can be written as both backwards and forwards solutions and the parameter restrictions which are required to obtain unique solutions.

PD July 1986. **TI** Dynamic Specification, the Long Run and the Estimation of Transformed Regression Models. **AU** Wickens, M. R.; Breusch, T. S. **AA** Wickens: Queen's University and University of Southampton. Breusch: Australian National University. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8618; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 40. **PR** No Charge. **JE** 212, 211. **KW** Dynamic Specification. Long Run Multipliers.

AB The purpose of this paper is to re-examine the question of dynamic specification when interest focusses mainly on the long-run properties of a model. Two issues are of particular concern. One is the most suitable form in which to specify a dynamic model in order to estimate its long-run multipliers. The other is the extent to which it is necessary to correctly specify the short-run dynamics in order to obtain useful estimates of the model's long-run properties. We do not claim that our results are always new, but where they are not we would wish to argue that by drawing upon various disparate strands of the existing literature, we are able to throw new light on a neglected, though important, aspect of dynamic specification.

Williams, Albert P.

TI Are Fee-For-Service Costs Increasing Faster Than HMO Costs? **AU** Newhouse, Joseph P.; Schwartz, William B.; Williams, Albert P.; Witsberger, Christina.

TI Are Fee-For-Service Costs Increasing Faster Than HMO Costs? **AU** Newhouse, Joseph P.; Schwartz, William B.; Williams, Albert P.; Witsberger, Christina.

Williams, Jeffrey C.

TI Measurement of Consumer Gains from Market Stabilisation. **AU** Wright, Brian D.; Williams, Jeffrey C.

Wilson, John D.

TI Measuring the Efficiency Cost of Taxing Risky Capital Income. **AU** Gordon, Roger H.; Wilson, John D.

Winters, Alan L.

PD June 1986. **TI** Britain in Europe: A Survey of Quantitative Trade Studies. **AA** University College of North Wales, Bangor. **SR** Centre for Economic Policy Research Discussion Paper: 110; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 46. **PR** 1 pound sterling ($2.00) individuals; 1.50 pound sterling ($3.00) companies, libraries, institutions. **JE** 421, 423. **KW** European Economic Countries. Customs Union. Economic Integration. Trade Creation.

AB This paper surveys four ex-post quantitative studies of the effect of United Kingdom accession to the European Economic Countries on trade in manufactures. It starts by discussing the principal predictions of economic theory, establishing a framework for measuring integration effects, and sketching the approaches used to study integration effects within the EEC. It then examines the four United Kingdom studies, showing the wide range of approaches and results. It concludes that British imports had risen on account of integration by around 8 billion pound sterling by 1979, almost all of which was trade creation. British exports of manufactures rose by 3 billion pound sterling, a 4.5 billion pound sterling increase to the EEC being offset by a loss of 1.5 billion pound sterling elsewhere. The paper concludes by considering estimates of the welfare effects of accession. The changes in the consumption and production of manufactures were probably beneficial overall, but it must be admitted that, to date, economists have not applied best practice techniques to this question.

PD July 1986. **TI** Industrial Countries' Agricultural Policy: How, What And Why. **AA** University College of North Wales, Bangor. **SR** Centre for Economic Policy Research Discussion Paper: 118; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 37. **PR** 1 pound sterling ($2.00) individuals; 1.50 pounds sterling ($3.00) companies, libraries, institutions. **JE** 713, 422. **KW** Agriculture. Protection. Political Economy.

AB Industrial countries' agricultural policies involve extensive intervention in both domestic markets and international trade. This paper sketches some of the techniques of intervention commonly used and asesses their net effects in terms of higher prices and reduced welfare. It then argues that these deleterious policies have emerged from the interaction of an economic system which is constantly changing and social attitudes which abhor change and value rural life-styles. Within the broad boundaries defined by these forces, agricultural pressure groups, bureaucrats and politicians have considerable discretion, and their interaction typically leads to higher levels and increasingly complex systems of farm support. This outcome results not just from equilibrium in the "political market-place", but also from the process by which decisions on agriculture (and other issues) are taken.

Witsberger, Christina

TI Reducing the Air Force Male Enlistment Requirement - Effects on Recruiting Prospects of the Other Services. **AU** Buddin, Richard; Witsberger, Christina.

TI Are Fee-For-Service Costs Increasing Faster Than HMO Costs? **AU** Newhouse, Joseph P.; Schwartz, William B.; Williams, Albert P.; Witsberger, Christina.

Wolf, Charles Jr

PD March 1985. **TI** Essays On Economic Policy And Foreign Policy. **AA** Rand. **SR** Rand Paper: P-7039; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 72. **PR** No Charge. **JE** 023, 400, 300. **KW** Economic Policy. Foreign Policy.

AB This paper is a collection of essays, all but one of which were previously published between November 1981 and November 1984 as op-ed pieces in the 'Wall Street Journal, the 'Los Angeles Times, the 'New York Times, the 'Washington Post, and 'Newsweek. The essays are grouped into two sections covering the broad areas of economic policy and foreign policy.

Wolf, Kathleen A.

TI Projected Use, Emissions, And Banks of Potential Ozone-Depleting Substances. **AU** Quinn, Timothy H.; Wolf, Kathleen A.; Moos, William E.; Hammitt, James K.; Chesnutt, Thomas W.; Sarma, Syam.

TI Product Uses and Market Trends for Potential Ozone-Depleting Substances 1985-2000. **AU** Hammitt, James K.; Wolf, Kathleen A.; Camm, Frank; Moos, William E.; Quinn, Timothy H.; Bamezai, Anil.

Wong, Lung Fai

PD August 25, 1986. **TI** A Comparative Analysis of Agricultural Productivity Trends in Centrally Planned Countries. **AU** Wong, Lung Fai; Ruttan, Vernon W. **AA** Wong: Minnesota House of Representatives. Ruttan: Department of Agricultural and Applied Economics, University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 86-4; Department of Agricultural and Applied Economics, 231 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 33. **PR** No Charge. **JE** 124, 710. **KW** Agricultural. Productivity. Centrally Planned Economies.

AB The study compares long term input, output and productivity growth among nine centrally planned countries for 1960-80. Cross-country production functions were estimated. The coefficients of the production functions were estimated. The coefficients of the production functions were used as weights in measuring sources of productivity growth. Growth in output was most rapid in Hungary, Romania, Yugoslavia and China. All the countries experienced strong upward trends in labor productivity. Only the German Democratic Republic and Czechoslovakia achieved positive rates of growth in total productivity. In all small countries increases in capital and operating inputs accounted for a very high share of growth in output in labor productivity.

Woods, Leyla

TI Conditionality and Adjustment in Hungary and Yugoslavia. **AU** Tyson, Laura; Robinson, Sherman; Woods, Leyla.

Wooldridge, Jeffrey

PD August 1986. **TI** Some Invariance and Central Limit Theorems for Dependent Heterogeneous Processes. **AU** Wooldridge, Jeffrey; White, Halbert. **AA** Wooldridge: Massachusetts Institute of Technology. White: University of California at San Diego. **SR** University of California at San Diego Department of Economics Discussion Paper: 86-18; Department of Economics, D-008, University of California at San Diego, La Jolla, CA 92093. **PG** 38. **PR** $2.00; checks payable to University of California Regents. **JE** 211. **KW** Unit Roots. Invariance Principle. Time Series. Central Limit Theorem. Mixingales. Trends.

AB In this paper we present a number of invariance principles for doubly indexed arrays of stochastic processes which may exhibit considerable dependence, heterogeneity and/or trending moments. In particular, we consider possibly time varying functions of infinite histories of heterogeneous mixing processes and obtain general invariance results, with central limit theorems following as corollaries. These results are formulated so as to apply to economic time series, which may exhibit some or all of the features allowed in our theorems. Results are given for the case of both scalar and vector stochastic processes. We apply our results to least squares estimation of unit root models.

Wright, Brian D.

TI Fiscal Incidence in Overlapping Generation Models with a Fixed Asset. **AU** Chamley, Christophe; Wright, Brian D.

PD April 1986. **TI** Measurement of Consumer Gains from Market Stabilisation. **AU** Wright, Brian D.; Williams, Jeffrey C. **AA** Wright: Department of Agricultural and Resource Economics, University of California, Berkeley. Williams: Brandeis University. **SR** University of California at Berkeley, Department of Agricultural and Resource Economics (CUDARE) Working Paper: 414; Department of Agricultural and Resource Economics, 207 Giannini Hall University of California, Berkeley, CA 94720. **PG** 31p. **PR** $6.20. **JE** 133, 921. **KW** Consumer Gains. Stabilisation Policies. Supply and Demand. Risk Aversion.

AB This paper demonstrates that there is little difference between exact measures of consumer gains from market stabilization and approximations like expected change in consumer surplus for most cases of practical significance, although if there is a difference its relative importance does not disappear as the degree of stabilization diminishes. Careful specification of the nature of stabilization is much more crucial to the accuracy of welfare measurements. It is important to determine whether the stabilization is in price or quantity, whether a partial or general equilibrium setting applies, whether supply responds to the stabilization or not, and whether the demand curve is linear or not. In any case, improved analytical approximations or easily implementable numerical methods make it unnecessary to rely on suspect measures of consumer gains.

Wright, Randall

TI On the Nature of Unemployment in Economies With Efficient Risk Sharing. **AU** Rogerson, Richard; Wright, Randall.

Yeh, K. C.

PD May 1985. **TI** Industrial Innovation In China With Special Reference To The Metallurgical Industry. **AA** Rand. **SR** Rand Note: N-2307; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 117. **PR** No Charge. **JE** 124, 621, 632, 611, 121. **KW** China. R&D. Metallurgical Industry. Industrial Innovation.

AB This Note attempts to assess the key factors underlying the effectiveness of the R&D system in the People's Republic of China, the major policy changes and institutional reforms that have been introduced to adapt R&D objectives and activities to the rapidly changing economic system, and the prospects of improving the effectiveness of the R&D system. It analyses problems of interface between the research institute and the production enterprise, and examines specific problems of innovation in the metallurgical industry. The findings suggest that despite impressive achievements, the quantity, quality, and variety of products of the metallurgical industry cannot meet the demand of the growing economy. The metallurgical industry appears to face the same major problems as the R&D system as a whole. The Chinese leadership has instituted various reforms, including transfer of military technology to civilian use, and sending scientists abroad for training. The reforms should have positive effects on the R&D system.

Yen, Tze Yi

PD August 15, 1986. **TI** Determinants of Rural and Urban Household Demand: An Analysis of Dominican Household Consumption. **AU** Yen, Tze Yi; Roe, Terry L. **AA** Department of Agricultural and Applied Economics, University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 86-3; Department of Agricultural and Applied Economics, 231 Classroom Office Building University of Minnesota, St. Paul, MN 55108. **PG** 91. **PR** No Charge. **JE** 921. **KW** Dominican Republic. Two-Level Demand Model. Limited Dependent Variables. Virtual Prices. Demand Elasticities.

AB A two-level demand model was derived from a strongly separable conditional indirect utility function to analyse the Dominican household consumption. The model was fitted to data of rural and urban households at different income levels. For household groups with significant observed sero consumption in certain commodities, a multivariate limited dependent variable model that utilises the concept of virtual prices was used to obtain consistent estimates of consumption parameters. The results show that households with higher income tend to be less responsive to own-price and income changes in the consumption of most food and non-food commodities. Additionally, while the uncompensated cross-price elasticities suggest gross complementarity among a significant proportion of commodities across household income groups, the compensated elasticities suggest that many of these commodities are net substitutes. As for demographic variates, the elasticities of rice and food as an aggregate with respect to household composition variables are all positive with few exception.

Yi, Youjae

TI On the Evaluation of Structural Equation Models.
AU Bagossi, Richard P.; Yi, Youjae.

Zabel, Edward

PD September 1985. **TI** Price Smoothing, Inventory and Random Output. **AA** University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 124; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 22. **PR** No Charge. **JE** 022, 611, 512. **KW** Price Flexibility. Random Demand. Random Output. Inventories.

AB This paper considers a multi-period, random demand, random output model to examine properties of price flexibility. A major outcome is to distinguish transient and ergodic states of the system. In stationary conditions when adjustments with respect to an initial position are complete, prices lie within the control bounds of an ergodic set, the price bounds are sensitive to cost parameters and properties of probability distributions, and price changes smooth variations in inventory caused by demand fluctuations. Considering price responses to changes in the demand structure, however, it may appear that the system responds more quickly to decreases in demand than to increases in demand.

PD November 1985. **TI** Equilibrium and Adjustments in Monopolistic Markets Under Uncertainty. **AA** University of Florida. **SR** University of Florida Center for Econometrics and Decision Sciences Working Paper: 126; Center for Econometrics and Decision Sciences, College of Business Administration, University of Florida, Gainesville, FL 32611. **PG** 35. **PR** No Charge. **JE** 022, 026, 611. **KW** Backlogging. Lost Sales. Random Demand. Uncertainty. Monopolistic markets.

AB A study is made of monopolistic trading processes in which, periodically, price and output decisions are made before the realisation of a random demand. Specifically, under reasonably general conditions, operating characteristics are developed and compared for two trading systems: one, the backlogging system, and the other, the lost sales system. In the backlogging system all demands are eventually satisfied and in the lost sales system current demand is satisfied only if demand is less than current supply. In each system we identify transitory and ergodic states, derive properties of the inherent equilibrium of the system and study adjustments toward the equilibrium and the sensitivity of adjustments to parameter changes. These developments permit a comparison of the operation of the two systems with particular emphasis on the question of price rigidity in concentrated industries.

Zaman, Asac

PD June 1986. **TI** The Rational Dogmatic Bayesian (Or: The Irrelevance of Data With Large Parameter Spaces). **AA** Columbia University. **SR** Columbia First Boston Series in Money, Economics and Finance Working Paper: FB-86-26; First Boston Series, Graduate School of Business, Columbia University, New York, NY 10027. **PG** 10. **PR** $5.00 academics and non-profit institutions; $6.00 corporations (add $1.00 outside United States, Canada and Puerto Rico). **JE** 026. **KW** Subjective Probability. Savage Axioms. Uncertainty. Decision Theory.

AB If the parameter space has the same cardinality as the interval 'O, infinity, then one can construct a sequence of choices for which rational decision-making requires selection of a particular point as the "true" parameter. If we follow Savage in identifying this point as the prior belief of the individual, it follows that individuals have point mass priors. From this we argue that even if individuals act as if they have a prior probability distribution over the parameter space when faced with Savage-type lotteries, they need not have such prior beliefs. Thus, in making actual statistical decisions, rational individuals may disregard the prior they used to choose over Savage-type lotteries.

Zilcha, I.

TI Oligopoly, Uncertain Demand and Forward Markets.
AU Eldor, R.; Zilcha, I.

TI Efficient Sets without Expected Utility Hypothesis with an Application to Optimal Insurance Policies.
AU Safra, Z.; Zilcha, I.