ABSTRACTS OF WORKING PAPERS IN ECONOMICS

This section contains abstracts and complete bibliographic information for current working papers, listed alphabetically by primary author. Brief entries appear for secondary authors, cross-referenced to the primary author. For more recent as well as historical information, consult the AWPE DATABASE, available on magnetic media from Cambridge University Press. (Call 212-924-3900)

Abraham, Katharine G.

PD June 1988. **TI** Flexible Staffing Arrangements and Employers' Short-Term Adjustment Strategies. **AA** University of Maryland. **SR** National Bureau of Economic Research Working Paper: 2617; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** $2.00. **JE** 824, 821, 813. **KW** Employment. Labor Market. Temporary Workers. Labor Force.

AB This paper reports new evidence from a survey of over 400 U.S. employers concerning their use of temporary and on-call workers. More than 90 percent of responding organizations reported reliance on these flexible staffing arrangements. They accounted for an average of 1.5 percent of total labor input at user organizations during 1985; at some organizations, they accounted for 10 percent or even 20 percent of total labor input. Four-fifths of survey respondents indicated that flexible staffing arrangements play an important role in absorbing workload fluctuations. Moreover, organizations with highly seasonal or highly cyclical demand made significantly greater use of flexible staffing arrangements during 1985 than organizations with less seasonal or less cyclical demand.

Abramovitz, Moses

PD March 1989. **TI** Notes on Postwar Productivity Growth: The Play of Potential and Realization. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 156; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 38. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 226, 041, 122. **KW** Economic Growth. Productivity. Developed Countries.

AB This paper reviews the main features of the postwar growth history of the industrialized countries of the "West." Against the backdrop of that history, it tries to explain what we understand of that experience and what the limits of that understanding are. It sees the great postwar growth boom of the Fifties and Sixties as an anomaly both in the extraordinary pace of productivity growth and in the essentially transitory nature of the causes on which the boom depended. It identifies these causes as a conjuncture of circumstances that made the potential for growth very strong and that supported rapid, sustained and concerted realization of potential. The main element of strong potential was the enlarged opportunity enjoyed by Europe and Japan after the war to "catch up" to the USA.

Adams, Charles

PD October 1989. **TI** A Systems Approach to Estimating the Natural Rate of Unemployment and Potential Output for the United States. **AU** Adams, Charles; Coe, David T. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/89; International Monetary Fund, Washington, DC 20431. **PG** 52. **PR** not available. **JE** 824, 226, 133. **KW** Unemployment. Output. Output Growth.

AB The methodology used in this paper has three distinguishing features: the natural rate of unemployment and potential output are jointly estimated; estimation integrates wage and price data with "real" and structural data; and third, the methodology encompasses many of the methods found in the literature. The results indicate that potential output growth has recovered somewhat during the early 1980s, but remains below the rapid rates of increase in the late 1960s. The natural rate, after rising during the late 1960s and the 1970s, is found to have declined in the 1980s. The paper concludes with an assessment of medium-term prospects for potential output and the natural rate.

Albaek, Svend

PD June 1989. **TI** Stackelberg Leadership as a Natural Solution: Under Cost Uncertainty. **AA** Universite Catholique de Louvain and University of Aarhus. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8914; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 32. **PR** no charge. **JE** 022, 026, 611. **KW** Duopoly Model. Nash Equilibrium. Uncertainty. Welfare Theory. Stackelberg Solution.

AB The paper analyzes a differential duopoly model with cost uncertainty in an environment where information sharing is prohibited. The duopolists can commit themselves to be a Stackelberg leader or follower at the time when they know the distributions, but not the actual values, of their own and the rival's costs. In a Natural Stackelberg Situation (NSS) the firms agree on the assignment of roles and neither prefers the (Bayesian) Nash equilibrium. An NSS is shown to be possible under Cournot (but not Bertrand) competition. Total expected welfare is higher in the NSS than in the Nash equilibrium.

Alesina, Alberto

PD October 1989. **TI** Public Confidence and Debt Management: A Model and a Case Study of Italy. **AU** Alesina, Alberto; Prati, Alessandro; Tabellini, Guido. **AA** Alesina: Harvard University. Prati: Banca D'Italia. Tabellini: University of California, Berkeley. **SR** Centre for Economic Policy Research Discussion Paper: 351; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 31. **PR** $4.00. **JE** 311, 322. **KW** Public Debt. Confidence Crisis. Debt

Crisis. Government Debt.
AB High-debt countries may face the risk of self-fulfilling debt crises. If the public expects that in the future the government will be unable to roll over the maturing debt, they may refuse to buy debt today and choose to hold foreign assets. This lack of confidence may then be self-fulfilling. This paper argues that under certain conditions, the occurrence of a confidence crisis is more likely if the average maturity of the debt is short. Conversely, a long and evenly distributed maturity structure may reduce the risk. We consider the recent Italian experience from this perspective. In particular we ask whether recent developments in the market for government debt show signs of unstable public confidence and a risk premium.

Alexander, Arthur J.

PD October 1988. **TI** Soviet Weapons Acquisition in a Period of New Economic Policies. **AA** Rand Corporation. **SR** Rand Paper: P-7489; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 27. **PR** not available. **JE** 114, 052. **KW** Soviet Union. Technology. Defense Spending. Military Systems.
AB This paper considers the future performance of the Soviet weapons acquisition sector under the conditions of Gorbachev's policies as they have been revealed thus far, and as they may develop in the future, emphasizing the technological change in the Soviet weapons research and development sector, and the systemic influences operating throughout the weapons acquisition process. The main impediments to Soviet innovation are reviewed, as are the means by which the military sector has avoided or mitigated the effects of many of these impediments, and the ways that present and possible future policies may change civilian and defense industries' relative capabilities in promoting technical change.

PD December 1988. **TI** The Cost and Benefits of Reliability in Military Equipment. **AA** Rand Corporation. **SR** Rand Paper: P-7515; Tha Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 102. **PR** not available. **JE** 114. **KW** Military Spending. Defense Spending. Military. National Defense.
AB The rising demand for more reliable military equipment has generated questions on the net benefits and appropriate strategies for obtaining reliability. This paper examines the costs of achieving greater reliability, the benefits of improved reliability in reduced support costs and increased availability, and strategies for attaining reliability goals. The author considers several kinds of evidence: reliability improvement programs, new product developments, statistical analyses of reliability costs and outcomes in new programs, and a review of a broad range of cases analyzed in other studies.

PD April 1989. **TI** The Defense Department's Support of Industry's Independent Research and Development (IR&D). **AU** Alexander, Arthur J.; Hill, Paul T.; Bodilly, Susan J. **AA** Rand Corporation. **SR** Rand Report: R-3649; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 96. **PR** no charge. **JE** 621, 114. **KW** R&D. Defense Spending. Military Sector.
AB Independent research and development (IR&D) is research and development initiated and conducted by contractors. It is not specified under any contract or grant, and is funded and managed at the contractor's discretion from contractor-controlled resources, with a portion of the costs later recovered in the overhead portion of Department of Defense (DOD) contracts. In terms of its most direct and basic contributions to national interest, the goals of IR&D are to (1) encourage contributions to future defense systems; (2) hedge against the uncertainties, inflexibilities, and short time horizons of defense planning and systems development; and (3) promote the movement of new ideas and technologies into enhanced defense capabilities.

Allen, Helen

PD September 1989. **TI** Charts, Noise and Fundamentals: A Study of the London Foreign Exchange Market. **AU** Allen, Helen; Taylor, Mark P. **AA** Allen: Bank of England. Taylor: City University Business School. **SR** Centre for Economic Policy Research Discussion Paper: 341; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 43. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 431, 132. **KW** Foreign Exchange. Exchange Rates. Forecasting.
AB Recent research in financial economics has concentrated on the role of non-economic, or non-fundamentalist, speculators in asset markets. This paper presents some empirical evidence concerning the nature and perceived importance of a major form of non-fundamentalist analysis, chartism, in the London foreign exchange market. It analyzes the results of a questionnaire survey on chartism conducted among chief foreign exchange dealers in the London market and data on a panel of chartists' one-week and four-week-ahead exchange rate predictions. The analysis suggests that a majority of chief dealers use at least some chartist input into their trading decisions, especially at the shorter time horizons.

Alogoskoufis, George S.

PD July 1989. **TI** Macroeconomic Policy and the External Constraint in the Dependent Economy: The Case of Greece. **AA** Birkbeck College. **SR** Centre for Economic Policy Research Discussion Paper: 330; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 42. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 431, 131, 133. **KW** Exchange Rates. Macroeconomic Policy. Economic Fluctuations.
AB In the paper I examine the trade-offs between internal and external balance and the role of macroeconomic policy in Greece. I estimate and test versions of the two principal open economy macromodels: the imperfect-substitutes, one-sector model, and the two-sector model with nontraded goods. Both are real general equilibrium models that highlight the pivotal role of wage and price setting for the determination of output, competitiveness and external balance. The results are unfavorable to the better-known imperfect-substitutes model, which is used more widely as the basis for modeling aggregate fluctuations in the main industrial economies.

Altman, Edward I.

PD November 1989. **TI** Fallen Angels: Are They All Created Equal?. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 538; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 34. **PR** no charge. **JE** 522, 521, 313, 311.

KW Bonds. Capital Markets. Securities. Financial Theory. Investment. Business Finance.
AB The objective of this paper is to analyze the pre and post downrating performance of those bonds which become fallen angels. We are concerned with how this segment of the junk bond market performs, both in absolute and relative terms, from just prior to the downrating to two years after. Are these bonds different from the junk bond market as a whole or does a security which becomes a junk bond then perform as any other non-investment grade security? And, within the fallen angel category, are there differences in performance depending upon the reason the bonds were downrated, whether the bond is from an industrial company or a public utility or for that matter where the bond "lands" when it falls to rest amongst other junk bonds.

PD November 1989. **TI** The "Junk Bond" Default: Rate Debate. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 539; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 37. **PR** no charge. **JE** 522, 521, 313. **KW** Default Risk. Corporate Bonds. Bonds. Capital Markets.
AB Most analysts agree that the risks involved in fixed income, corporate bonds can be subsumed under three primary categories; interest rate risk, liquidity risk and default risk. This paper will concentrate on the continuing debate and recent prolific interest in the last of these categories, namely the appropriate measurement, historical incidence and future likelihood of defaults in interest and/or principal of corporate issuers and the ramifications for investor returns.

Altonji, Joseph

PD August 1989. **TI** The Effects of Inmigration on the Labor Market Outcomes of Less-Skilled Natives. **AU** Altonji, Joseph; Card, David. **AA** Altonji: Northwestern University. Card: Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 256; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 61. **PR** $2.00. **JE** 823, 824, 813. **KW** Immigration. Labor Mobility. Labor Force. Employment. Labor Supply.
AB This paper examines the effects of inmigration on the labor market outcomes of less-skilled natives. Working from a simple model of a local labor market, we show that the effects of inmigration can be estimated from the correlations between the fraction of inmigrants in a city and the employment and wage outcomes of natives. The size of the effects depend on the fraction and skill composition of the inmigrants. We go on to compute these correlations using city-specific outcomes for individuals in 120 major SMSA's in the 1970 and 1980 Censuses. We also use the relative industry distributions of inmigrants and natives to provide a direct assessment of the degree of labor market competition between them.

Anas, Alex

PD May 1989. **TI** Dynamic Housing Market Equilibrium with Taste Heterogeneity, Idiosyncratic Perfect Foresight and Stock Conversions. **AU** Anas, Alex; Arnott, Richard J. **AA** Anas: Northwestern University. Arnott: Boston College. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 834; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 49. **PR** no charge. **JE** 932, 931, 022. **KW** Dynamic Model. Housing Markets. Urban Economics.
AB A discrete-time, nonstationary dynamic equilibrium model of the housing market is developed in which consumers exhibit taste heterogeneity and investors act with perfect foresight subject to idiosyncratic uncertainty in costs. Housing is treated as a discrete, durable and differentiated good which is indivisible in consumption and a convertible asset in investment. The dynamic market equilibrium determines the allocation of each consumer type among the housing types, the rent and vacancies of each housing type, the asset prices of housing and land, and the conversions between land and housing and among the stocks of housing of each type.

Anderlini, Luca

PD November 1987. **TI** Manager-Managed Firms. **AA** St. John's College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 115; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 37. **PR** $4.00, checks payable to University of Cambridge. **JE** 511, 611, 022. **KW** Industrial Organization. Decision Theory. Firm Theory.
AB This paper considers a 3-tier organization in which the bottom tier carries out actual production, the middle one has a supervisory role, and the top tier is entitled to residual output. Does it make any difference whether it is the top tier or the middle one who designs the incentive schemes used to run the organization? The answer is yes. If it is the middle tier who acts as "principal", the outcome can be constrained efficient. The middle tier will design incentive schemes for the lower tier which unduly amplify the "marginal product" of its supervisory function. This, under certain conditions, prevents the outcome from being efficient since it involves "suboptimality" of the incentive scheme for the lower tier.

PD March 1988. **TI** Some Notes on the Economies of the Barter, Money and Credit. **AU** Anderlini, Luca; Sabourian, Hamid. **AA** Anderlini: St. John's College, Cambridge. Sabourian: King's College. **SR** University of Cambridge Economic Theory Discussion Paper: 128; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 29. **PR** $4.00, checks payable to University of Cambridge. **JE** 023. **KW** Barter. Credit. Money. Economic Theory.
AB The problems of barter and more generally the question of the organization of exchange have been attracting the attention of economists for a long time. These notes are an attempt to summarize our views about the matter. We have endeavored to avoid technicalities at all costs, and hence omissions have been inevitable.

PD July 1988. **TI** Forecasting Errors and Bounded Rationality: An Example. **AA** St. John's College. **SR** University of Cambridge Economic Theory Discussion Paper: 127; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 17. **PR** $4.00, checks payable to University of Cambridge. **JE** 132, 022, 227, 511. **KW** Prices. Forecasting. Decision Rules.
AB I apply the "axiomatic theory of computational complexity" to the problem of a firm which has to try to

"match" a binary, deterministic, discrete infinite price sequence. The central result of the paper is that, given any measure of complexity satisfying certain (standard) axioms, it is possible to find binary deterministic price-generating function for which the optimal decision rule will involve the firm being wrong about the price of its output infinitely often. Although the firm cannot observe the price, it can be interpreted as being fully informed about the model which generates the price sequence (the price-generating function). What is hard in complexity terms for the firm is to "run" such model to obtain a correct prediction of the price.

PD August 1988. **TI** Some Notes on Church's Thesis and the Theory of Games. **AA** St. John's College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 126; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 27. **PR** $4.00, checks payable to University of Cambridge. **JE** 026. **KW** Game Theory. Rationality. Impossibility Theorem.
AB This paper is more in the spirit of some work of Binmore (1987). The stance taken here is not difficult to outline. There exists a well developed branch of mathematics which concerns itself with what mathematics can or cannot do. The "models" developed to this end go under the name of "recursive function theory". The viewpoint adopted here is simply that if a "model" is good enough to tell us what a mathematician can or cannot do in principle, it must, a fortiori, be good enough to tell us what a "rational agent" can or cannot do in principle. The aim of this paper is to explore somewhat further than what was done in Binmore (1987) the consequence if this stance on the simplest part of the theory of games. I am in fact only concerned with two person, one shot, finite strategy games.

Anderson, Simon P.

PD March 1989. **TI** Social Surplus and Profitability Under Different Spatial Pricing Policies. **AU** Anderson, Simon P.; de Palma, Andre; Thisse, Jaques-Francois. **AA** Anderson: University of Virginia. de Palma: Northwestern University. Thisse: Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8910; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 30. **PR** no charge. **JE** 611, 022. **KW** Mill Pricing. Pricing Policy. Oligopoly. Price Discrimination.
AB In a first best world the optimal spatial pricing for firms is mill pricing with a mill price equal to marginal cost (with firm locations determined by welfare maximization). In a world of oligopolistic competition, other pricing policies may yield higher welfare than mill pricing because (i) firms will typically price above marginal cost leading to deadweight loss on the demand side, and (ii) firm locations will typically depend on the spatial pricing policy adopted. In this paper we concentrate on the second effect to compare the efficacy of alternative spatial pricing policies. Specifically, we set up a model where there is no demand i distortion from mill pricing (by assuming total demand to be completely inelastic) so that we can analyze the location effect in isolation.

Andersson, Krister

PD December 1989. **TI** Implications of a Lower Capital Gains Tax Rate in the United States. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/100; International Monetary Fund, Washington, DC 20431. **PG** 23. **PR** not available. **JE** 323. **KW** Capital Gains. Tax Rates. Tax Revenues. Taxation.
AB This paper reviews the literature on the revenue implications of a lower capital gains tax rate in the United States. The existing empirical research indicates that the timing of realizations is sensitive to tax changes but is inconclusive on the long-run revenue implications. No study claims that tax revenues would increase very much on a permanent basis. The paper concludes that other aspects of a lower capital gains tax rate deserves more attention, in particular its impact on resource allocation and tax arbitrage.

Andre, Christine

TI Patterns of the State-Economy Relationships: A Comparison Between France and the Federal Republic of Germany. **AU** Delorme, Robert; Andre, Christine.

Andrews, Donald W. K.

PD July 1989. **TI** Heteroskedasticity and Autocorrelation Consistent Convariance Matrix Estimation. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 877R; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 36. **PR** $2.00. **JE** 211. **KW** Autocorrelation. Kernel Estimator. Spectral Density. Heteroskedasticity. Mean Squared Error. Covariance Matrix.
AB This paper is concerned with the estimation of covariance matrices in the presence of heteroskedasticity and autocorrelation of unknown forms. Currently available estimators that are designed for this context depend upon the choice of a lag truncation parameter and a weighting scheme. No results are available, however, regarding the choice of a lag truncation parameter for a fixed sample size, regarding data-dependent automatic lag truncation parameters, or regarding the choice of weighting scheme. In consequence, available estimators are not entirely operational and the relative merits of the estimators are unknown.

PD September 1989. **TI** Additive Interactive Regression Models: Circumvention of the Curse of Dimensionality. **AU** Andrews, Donald W. K.; Whang, Yoon-Jae. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 925; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 20. **PR** no charge. **JE** 211. **KW** Nonparametric Estimation. Nonparametric Regression. Asymptotic Theory. Regression Model. Cross-Validation.
AB This paper considers series estimators of additive interactive regression (AIR) models. AIR models are nonparametric regression models that generalize additive regression models by allowing interactions between different regressor variables. They place more restrictions on the regression function, however, than do fully nonparametric regression models. By doing so, they attempt to circumvent the curse of dimensionality that afflicts the estimation of fully nonparametric regression models. In this paper, we present a finite sample bound and asymptotic rate of convergence results for the mean average squared error of series estimators that show the AIR models do circumvent the curse of dimensionality.

PD October 1989. **TI** Estimation of Polynomial Distributed Lags and Leads with End Point Constraints.

AU Andrews, Donald W. K.; Fair, Ray C. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 926; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 16. **PR** no charge. **JE** 211. **KW** Polynomial Distributed Lags. Lag Length. Asymptotic Theory. Polynomial Lags.

AB This paper considers the use of the Polynomial Distributed Lag (PDL) technique when the lag length is estimated rather than fixed. We focus on the case where the degree of the polynomial is fixed, the polynomial is constrained to be zero at a certain lag length q, and q is estimated along with the other parameters. We extend the traditional PDL setup by allowing q to be real-valued rather than integer-valued, and we derive the asymptotic covariance matrix of all the parameter estimates, including the estimate of q. The paper also considers the estimation of distributed leads rather than lags, a case that can arise if expectations are assumed to be rational.

Arnott, Richard J.

TI Dynamic Housing Market Equilibrium with Taste Heterogeneity, Idiosyncratic Perfect Foresight and Stock Conversions. **AU** Anas, Alex; Arnott, Richard J.

Arora, Ashish

PD July 1989. **TI** Complementarity and External Linkages: The Strategies of the Large Firms in Biotechnology. **AU** Arora, Ashish; Gambardella, Alfonso. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 167; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 41. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 611, 621, 514, 511. **KW** Collaborations. Biotechnology. Industrial Organization.

AB In biotechnology, large firms enter into different kinds of linkages with universities and small/medium sized research-intensive firms. In this paper we test the hypothesis that the strategies of external linkage of the large firms with other parties are complementary to one another. We show that if any two strategies are complementary (i.e., undertaking more of one strategy raises the marginal value of the other) then they are positively correlated. Using data for a sample of large US, European and Japanese chemical and pharmaceutical producers, we find that the strategies above are positively correlated even after controlling for firm-specific characteristics.

Artis, Michael

TI Saving, Investment, Financial Integration, and the Balance of Payments. **AU** Bayoumi, Tamim; Artis, Michael.

Ashenfelter, Orley

PD January 1990. **TI** Non-Parametric Estimates of the Labor Supply Effects of Negative Income Tax Programs. **AU** Ashenfelter, Orley; Plant, Mark W. **AA** Ashenfelter: Princeton University. Plant: Bureau of the Census. **SR** Princeton Industrial Relations Section Working Paper: 259; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 34. **PR** $1.50. **JE** 824, 323, 921. **KW** Labor Supply. Income Taxes. Wages. Employment.

AB This paper reports nonparametric estimates of the effect of labor supply behavior on the payments to families enrolled in the Seattle/Denver Income Maintenance Experiment. The randomized assignment of families to the treatment groups in this experiment was designed to permit the calculation of these nonparametric estimates. However, the nonparametric estimates have never been reported, even though they are easy to construct using a simple weighting procedure. Unfortunately, responses to the data collection instrument (which depended on costly surveys) were not random, and this opens up some ambiguity in the results.

Attanasio, Orazio P.

PD February 1989. **TI** Risk, Gordon's Growth Model, and the Predictability of Stock Market Returns. **AU** Attanasio, Orazio P.; Wadhwani, Sushil B. **AA** Attanasio: Stanford University and London School of Economics. Wadhani: London School of Economics. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 161; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 47. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 313, 132, 226, 311. **KW** Risk Premium. Growth Model. Market Efficiency.

AB This paper measures risk by using proxies based on lagged squared returns, the GARCH-M model and consumption correlatedness. It finds: (i) Even after you control for risk, expected inflation is negatively correlated with excess returns in the UK and US in the post-war period. (ii) Lagged dividend yields help predict excess returns in the post-war period except when they are allowed to affect volatility in a GARCH-M model for the U.S. (iii) These results may be interpreted as arising from a modified form of Gordon's Growth model, which is seen to contain the standard Efficient Markets Model as a special case.

PD April 1989. **TI** Consumption, Productivity and the Interest Rate. **AU** Attanasio, Orazio P.; Weber, Guglielmo. **AA** Attanasio: Stanford University and London School of Economics. Weber: University College London. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 160; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 36. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 921, 226, 132. **KW** Overlapping Generations Model. Productivity. Cohort Effect. Consumption.

AB In this paper we try to assess the size of the elasticity of intertemporal substitution (EIS) and to explain why very different results are obtained using aggregate and micro data. We use two overlapping generations models to establish that estimates of the EIS based on aggregate data are downward biased due to the presence of cohort effects and productivity growth. These predictions are confirmed by our empirical results. Our estimate of the EIS using average cohort data is just above unity and is reasonably well determined. The estimates we get using different measures of aggregate data (either from National Account statistics or average survey data) are instead consistently lower.

Ausubel, Lawrence M.

PD September 1989. **TI** Bargaining and the Right to Remain Silent. **AU** Ausubel, Lawrence M.; Deneckere, Raymond J. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 856; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208.

PG 30. **PR** no charge. **JE** 026, 022, 213. **KW** Bargaining. Coase Conjecture. Incomplete Information. Sequential Equilibrium.

AB This paper analyzes a class of alternating offer bargaining games with one-sided incomplete information. If sequential equilibria are required to satisfy the additional restrictions of stationarity, monotonicity, pure strategies and no free screening, the Silence Theorem is shown to hold: When the time interval between successive periods is sufficiently short, the informed party never makes any serious offers in the play of alternating offer bargaining games. A class of parametric examples suggests that the time interval required to assure silence is not especially brief.

Baldwin, John R.

PD November 1989. **TI** Firm Turnover and Market Structure: Concentration Statistics as a Misleading Practice. **AU** Baldwin, John R.; Gorecki, Paul K. **AA** Baldwin: Queen's University. Gorecki: Economic Council of Canada. **SR** Queen's Institute for Economic Research Discussion Paper: 762; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 42. **PR** $3.00 Canada and U.S.; $3.50 Foreign. **JE** 611, 514, 511, 631. **KW** Firm Turnover. Firm Mobility. Market Power. Market Structure.

AB This paper examines the importance of firm mobility in the Canadian manufacturing sector during the 1970's. It asks whether turnover measures yield different information about market structure than traditional measures of concentration. Two types of mobility statistics are used. The first focuses on firm entry and exit, measuring that which is due both to new plant creation or closure and that which originates from mergers. Second, a measure of mobility within the set of continuing firms is computed. It measures the average shift in market shares. The entry and mobility measures depict a system that is undergoing a substantial amount of change, in contrast to concentration statistics, which have remained relatively constant over the decade.

Bamezai, Anil

TI Recruiting Effects of Army Advertising. **AU** Dertouzos, James N.; Polich J. Michael; Bamezai, Anil; Chestnutt, Thomas.

Bartolini, Leonardo

PD October 1989. **TI** Waiting to Lend to Borrowers with Limited Liability. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 108; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 46. **PR** $3.00. **JE** 441, 433. **KW** Option Pricing. Loans. Debt Crisis. Debt Default.

AB A model of risky lending with no collateralized stocks is developed. Option pricing techniques are used to characterize the optimal lending policy for a bank which faces a borrower with possibility of partial default. New loans are generated only for borrowers whose potential repayment strictly exceeds their current obligations, to compensate lenders for the irreversibility of their financing decision when borrowers are in default. The model can be used to appraise the likelihood of escaping from the current sovereign debt crisis. A pessimistic outlook emerges for the possibility of triggering new voluntary lending by enacting only a modest amount of debt forgiveness.

Basar, Tamer

PD October 1989. **TI** Credibility and the Value of Information Transmission in a Model of Monetary Policy and Inflation. **AU** Basar, Tamer; Salmon, Mark. **AA** Basar: University of Illinois, Urbana-Champaign. Salmon: European University Institute. **SR** Centre for Economic Policy Research Discussion Paper: 338; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 31. **PR** $4.00. **JE** 023, 026, 311. **KW** Monetary Policy. Asymmetric Information. Time Consistency.

AB In this paper we solve for the optimal (Stackelberg) policy in a model of credibility and monetary policy developed by Cukierman and Meltzer. Unlike the (Nash) solution provided by Cukierman and Meltzer, the dynamic optimization problem facing the monetary authority in this case is not of a linear quadratic form and certainty equivalence does not apply. The learning behavior of the private sector (regarding the policymaker's preferences) becomes intimately linked with the choice of the optimal policy and cannot be separated as in the certainty equivalent case. Once the dual effect of the optimal Stackelberg policy is recognized, the monetary authority has an additional channel of influence to consider beyond that taken into account by sub-optimal, certainty equivalent, Nash policy rules.

Bayoumi, Tamim

PD December 1989. **TI** Saving, Investment, Financial Integration, and the Balance of Payments. **AU** Bayoumi, Tamim; Artis, Michael. **AA** Internartional Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/102; International Monetary Fund, Washington, DC 20431. **PG** 33. **PR** not available. **JE** 432, 441, 431. **KW** Current Account. Capital Markets. Capital Mobility. International Trade.

AB This paper examines the extent of international financial integration, and its consequences for the current account. The evidence indicates that financial liberalization in the 1970s and 1980s has resulted in a substantial movement towards closer integration of world capital markets. By reducing constraints on international capital flows, this movement makes the current account more of a residual factor in agents' decisions.

Bayoymi, Tamim

PD October 1989. **TI** The Effects of Financial Deregulation on Consumption. **AU** Bayoymi, Tamim; Koujianou, Pinelopi. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/88; International Monetary Fund, Washington, DC 20431. **PG** 32. **PR** not available. **JE** 921, 122, 613. **KW** Consumption. Liquidity Constraints. Deregulation. Financial Markets.

AB This paper examines whether financial deregulation in the 1980s has reduced the importance of liquidity constraints in consumption patterns. Data for six industrialized countries are used to estimate a simple model incorporating liquidity constraints and forward looking behavior. It is concluded that the importance of liquidity constraints fell between the 1970s and the 1980s. This implies that forward looking models of consumer behavior fit the data better in the recent period.

Beja, Auraham

PD June 1989. **TI** Numerical Representations of

Imperfectly Ordered Preferences (A Unified Geometric Exposition). **AU** Beja, Auraham; Gilboa, Itzhak. **AA** Beja: Tel Aviv University and Massachusetts Institute of Technology. Gilboa: Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 836; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 46. **PR** no charge. **JE** 022, 213. **KW** Utility Theory. Preferences.

AB This paper uses "generalized numerical representations" to extend some of the ideas underlying classical utility theory, applying them to imperfectly ordered preferences in general and semiordered preferences in particular. It offers a unified geometric approach, where the representations help visualize the relationship between suborders, interval orders, semiorders, and weak orders: increasingly stringent conditions on the preference relation give rise to increasingly intuitive association between the stated preferences and the "utility numbers" assigned to alternatives. Technically, the main new results are axiomatizations for fixed threshold representations of the "just noticeable difference" when the set of alternatives is not necessarily countable.

Benabou, R.

PD February 1989. **TI** Using Privileged Information to Manipulate Markets: Insiders, Gurus, and Credibility. **AU** Benabou, R.; Laroque, G. **AA** Benabou: Massachusetts Institute of Technology. Laroque: INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8907; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 60. **PR** no charge. **JE** 313, 311. **KW** Financial Markets. Reputation. Credibility. Asset Markets.

AB We show how an insider, a financial journalist, or a "guru" can repeatedly manipulate an asset market to his own benefit, by making strategically distorted announcements or predictions. We also analyze the extent to which the public's attempt to learn over time whether or not this informed agent can be trusted may limit, in the long run, his influence on the market. In solving the model, we extend Sobel's [1985] results for repeated games of information transmission to the case where the sender has imperfect information, which generates richer and more realistic reputation processes over an infinite horizon.

Benhabib, Jess

PD September 1989. **TI** A Vintage Capital Model of Investment and Growth: Theory and Evidence. **AU** Benhabib, Jess; Rustichini, Aldo. **AA** Benhabib: New York University. Rustichini: AT&T Bell Laboratories and Northwestern University. **SR** New York University Economic Research Reports: 89-26; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 91. **PR** none. **JE** 522, 226, 131, 111. **KW** Vintage Capital. Growth Theory. Investment.

AB An equilibrium vintage model is proposed to study the volatility of investment expenditures. In a stochastic framework it is shown that the existence of vintage effects results in the smoothing of output and in contrast to adjustment cost models, in endogenously volatile and oscillatory investment. Empirical tests are proposed and implemented using investment time series data.

PD September 1989. **TI** Equilibrium Cycling with Small Discounting: A Note. **AU** Benhabib, Jess; Rustichini, Aldo. **AA** Benhabib: New York University. Rustichini: AT&T Bell Laboratories and Northwestern University. **SR** New York University Economic Research Reports: 89-27; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 11. **PR** none. **JE** 111, 131. **KW** Fluctuations. Growth Model. Growth Theory.

AB A misinterpretation of turnpike theorems suggests that persistent cyclic behavior in optimal growth models is only possible with large discount rates. This paper shows that for any positive discount rate there exists a large family of standard Cobb-Douglas technologies with three sectors which have optimal growth paths of persistent cycles.

Bergin, James

PD July 1989. **TI** A Model of Strategic Behavior in Repeated Games. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 751; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 35. **PR** $3.00 Canada; $3.50 U.S. and Foreign. **JE** 026, 213. **KW** Repeated Game. Differential Game. Strategic Behavior. Continuous Time. Folk Theorem.

AB This paper develops a general repeated game model over arbitrary time domain. The model includes the standard repeated game and the most general forms of differential games. The paper considers the issue of formulating strategic behavior in a general framework which include continuous time behavior. There are obvious requirements which a strategy must necessarily satisfy. These requirements are stated as axioms and within this axiomatic framework, a class of strategies (called variable response strategies, VRS) is developed. In this class of strategy, a player is committed at any point in time to history independent behavior for a positive length of time. However, this length of time of commitment depends on the way history evolves locally.

PD July 1989. **TI** Renegotiation Proof Equilibria in Continuous Time Games. **AU** Bergin, James; MacLeod, W. Bentley. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 753; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 25. **PR** $3.00 Canada; $3.50 U.S. and Foreign. **JE** 026. **KW** Renegotiation. Folk Theorem. Continuous Time. Game Theory.

AB In this paper we develop a model of strategic behavior in continuous time games of complete information. This model bridges the gap between the differential formulation of a continuous time game and the procedure of taking limits with respect to discrete time games. The model developed here admits a large class of strategies. As a result, the set of equilibria is large, roughly equal to the set of equilibria given by the folk theorem. In addition, we define the concept of renegotiation proof equilibrium in this context and characterize the set of renegotiation proof equilibria of the game.

TI Anonymous Sequential Games with Aggregate Uncertainty. **AU** Bernhardt, Dan; Bergin, James.

Bernard, Jean-Thomas

PD June 1989. **TI** Multinational Corporations, Transfer Prices, and Taxes: Evidence from the U.S. Petroleum Industry.

AU Bernard, Jean-Thomas; Weiner, Robert J. **AA** Bernard: University Laval. Weiner: Brandeis University and EEPC, Kennedy School of Government. **SR** National Bureau of Economic Research Working Paper: 3013; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 40. **PR** $2.00. **JE** 442, 632. **KW** Multinational Corporations. Oil. Energy.

AB Economic research on transfer-pricing behavior by multinational corporations has emphasized theoretical modeling and institutional description. This paper presents the first systematic empirical analysis of transfer prices, using data from the petroleum industry. On the basis of oil imported into the United States over the period 1973-1984, we test two propositions: i) Are prices set by integrated companies for their internal transfers different from those prevailing in arm's-length (i.e., intercompany) trade, when other variables, such as oil quality, are controlled for? ii) Do average effective corporate income tax rates explain observed patterns of transfer pricing?.

Bernhardt, Dan

PD November 1989. **TI** Anonymous Sequential Games with Aggregate Uncertainty. **AU** Bernhardt, Dan; Bergin, James. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 760; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 23. **PR** $3.00 Canada and U.S.; $3.50 Foreign. **JE** 026. **KW** Sequential Game. Game Theory. Existence. Uncertainty.

AB In this paper we extend a result of Jovanovic and Rosenthal (1988) on the existence of equilibrium in Anonymous Sequential Games. Jovanovic and Rosenthal prove existence in the case where the aggregate distribution of agents' characteristics evolves nonstochastically, the case of "no aggregate uncertainty". Here we show how aggregate uncertainty can be introduced into the model (so the aggregate distribution evolves stochastically) and extend the Jovanovic and Rosenthal existence theorem to this case.

Bhaskar, V.

PD July 1989. **TI** Employment and Prices in an Open Economy: The UK. **AA** University College London. **SR** University College London Discussion Paper: 89-13; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 36. **PR** 2.00 pounds. **JE** 134 431, 824. **KW** Labor Demand. Prices. Open Economy.

AB An open economy framework is used to derive a new specification for aggregate labor demand, which is supported by empirical tests and performs substantially better than alternatives on U.K. data. Our model shows that conventional employment equations overestimate the wage elasticity of labor demand and the degree of sluggishness in employment adjustment. Price mark-ups are strongly influenced by competitiveness, in line with oligopoly models. Profit-tax shifting, and the absence of demand and labor utilization effects, suggest that transient marginal cost variations do not affect prices. These results support customer market theories where prices reflect intertemporal trade-offs.

PD July 1989. **TI** Wage Relativities and the Natural Range of Unemployment. **AA** University College London. **SR** University College London Discussion Paper: 89-12; Department of Economics, University College London, Gower Street, London WC1E 6BT, ENGLAND. **PG** 13. **PR** 2.00 pounds. **JE** 824, 132, 023. **KW** Relative Wages. Multiple Equilibria. Rational Expectations. Unemployment.

AB If workers are concerned about their relative wage this can give rise to continuum of natural rates of unemployment which are perfect foresight equilibira. These equilibria can be Pareto ranked in the same order as their level of employment. Which equilibrium is reached depends upon expectations in a bootstrap way so that sunspots can induce fluctuations, and monetary policy can bring about shifts between equilibria. Due to coordination failures, perfectly rational agents may make systematic forecasting errors even in the absence of intrinsic uncertainty. If a few agents have adaptive expectations, the economy behaves in a Keynesian manner within the natural range, while being classical at its extremes.

Bikhchandani, Syshil

PD 1986. **TI** Reputation in Repeated Second Price Auctions. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-7; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 27. **PR** $2.00; checks payable to U.C. Regents. **JE** 022, 026. **KW** Auction Theory. Bidding. Repeated Game.

AB A model in which two bidders take part in a series of second price, common value, auctions is examined. The question of an optimal auction from an auctioneer's standpoint, in a repeated auction setting, is partially addressed. It is shown that the results from single auction models do not carry over to repeated auctions, when one of the bidders is endowed with a reputation for bidding aggressively. Second price auctions are highly susceptible to manipulative bahavior by such a bidder, and yield much lower revenues to the auctioneer.

Binswanger, Hans P.

TI Wealth, Weather, Risk and the Composition and Profitability of Agricultural Investments. **AU** Rosenzweig, Mark R.; Binswanger, Hans P.

Bjorndal, Trond

PD November 1988. **TI** Does the Prisoner's Dilemma Apply to a Fishery. **AU** Bjorndal, Trond; Scott, Anthony D. **AA** Bjorndal: Norwegian School of Economics and Business Administration. Scott: University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-33; Department of Economics, University of British Columbia, 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 29. **PR** n/a. **JE** 026, 611, 711, 722. **KW** Prisoner's Dilemma. Fishery. Oligopoly.

AB The tragedy of the commons has inspired economists to illustrate it by using game theory. The prisoner's dilemma is nearly always the game used. Expositions have been presented in which the author took no trouble to establish that the entries in his payoff table corresponded to the payoffs that would be obtained in the context of the Gordon-Schaefer bioeconomic model. The purpose of this paper is to explore whether teacher-writer-economists and game theorists have been making the same assumptions.

PD September 1989. **TI** Price Response and Optimal Vessel Size in a Multi-Output Fishery. **AU** Bjorndal, Trond; Gordon, Daniel V. **AA** Bjorndal: University of British

Columbia.
Gordon: Dalhousie University. **SR** University of British Columbia Department of Economics Discussion Paper: 88-24; Department of Economics, University of British Columbia, 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 34. **PR** n/a. **JE** 721, 711. **KW** Fishery. Economics of Scale.
AB The purpose of this paper is to analyze economies of scale in the Norwegian purse seine fleet and their significance in the optimal management of the fisheries. The fleet consists of highly mobil ocean-going vessels that participate in a number of seasonal fisheries, including those for capeline, mackerel, herring and blue whiting. Thus, utilizing the same inputs, boats produce several outputs. The empirical analysis will make use of data that have been provided by the Norwegian Directorate of Fisheries. Cross sectional data have been made available for a sample of boats for 1982 and 1983. The data set contains very detailed information per boat about output and revenue for different species, effort, costs and certain physical attributes such as boat size.

Black, Stanley W.

PD November 1989. **TI** Transaction Costs and Vehicle Currencies. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/96; International Monetary Fund, Washington, DC 20431. **PG** 27. **PR** not available. **JE** 431, 432. **KW** Foreign Exchange. Capital Mobility. Currency Reserves. Transaction Costs.
AB Using a simple model of transactions costs in the interbank foreign exchange market and a model of vehicle currency use, the interaction between transactions costs and vehicle currency use is explored. The impact of volume on bid-ask spreads is estimated from cross-section time series data on seven currencies. Data on transactions costs and the currency denomination of trade and capital flows is used to estimate changes in the attractiveness of using the U.S. dollar as a vehicle between 1980 and 1987. The data suggest a modest reduction in the attractiveness of the dollar as a vehicle.

Blackburn, Keith

PD 1989. **TI** Aggregate Fluctuations and the Exchange Rate Regime in an Optimizing Model of a Small Open Economy. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8912; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 32. **PR** no charge. **JE** 431, 411. **KW** Open Economy. Exchange Rates.
AB This paper examines the effects of various disturbances in a small open economy with the following characteristics: (1) all behavioral relationships reflect the optimizing decisions of atomistic firms and households; (2) both the private and public sectors' intertemporal resource constraints are satisfied at every moment in time; (3) there is perfect substitutability between domestic and foreign goods but imperfect substitutability between domestic and foreign assests; and (4) all markets clear and all expectations are realized. The behavior of this economy is compared and contrasted under different exchange rate regimes.

Blackorby, Charles

PD September 1988. **TI** Adult-Equivalence Scales and the Economic Implementation of Interpersonal Comparisons of Well-Being. **AU** Blackorby, Charles; Donaldsen, David. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-27; Department of Economics, University of British Columbia, 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 56. **PR** n/a. **JE** 921, 024. **KW** Welfare Economics. Economic Agents. Representative Consumer.
AB In economic environments, all practical social evaluations (applications of welfare economics) must deal with two important problems: (1) in different states of affairs prices are likely to be different, and (2) most "welfarist" social ethics require that the well-being (utility) of individual members of different households be compared. To deal with these issues, we assume that the demands of the household are rationalizable by utility-maximizing behavior and that the intra-household allocation process is such that all of the members of a given household are equally well off. Given this, a procedure must be found to compare these utilities across households.

Blake, Andrew

PD February 1988. **TI** Wealth Targets, Exchange Rate Targets and Macroeconomic Policy. **AU** Blake, Andrew; Vines, David; Weale, Martin. **AA** Blake and Weale: University of Cambridge. Vines: University of Glasgow and Centre for Economic Policy Research. **SR** University of Cambridge Department of Applied Economics Working Paper: 887; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 40. **PR** $4.00, checks payable to University of Cambridge. **JE** 431, 311, 321, 134. **KW** Exchange Rates. Monetary Policy. Fiscal Policy. Inflation. Wages.
AB This paper argues that a wealth target is an important feature of an economic policy package. A real exchange rate target cannot replace a wealth target but can be used as an intermediate target to steer national wealth towards its target value. Such a policy requires that fiscal policy must be used to restrain inflation. This may be difficult if wages are negotiated as real take-home pay. In such circumstances monetary policy must be used to restrain inflation, with fiscal policy being used to mantain national wealth. Such a monetary policy can again be expressed by means of an exchange rate target. These points are demonstrated algebraically and then illustrated using policy rules designed for use on a model of the United Kingdom economy.

Blau, David M.

PD August 1989. **TI** The Child Care Labor Market. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 89-7; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 53. **PR** none. **JE** 824, 822, 812, 813. **KW** Child Care. Wages. Labor Force. Occupations.
AB This study provides the first systematic analysis of the labor market behavior and characteristics of child care workers in the United Sates. A nationally representative sample of over 4,000 child care workers from the 1977-1987 March Current Population Survey is used to provide both a descriptive analysis of child care workers and to estimate a model of choice of sector within the child care labor market, wages, and hours of work. The analysis is based on a theoretical model and

provides tests of hypothesis derived from the model. The results indicate that child care workers' wages are generally unaffected by government subsidies and regulations, suggesting that the supply of child care labor is relatively elastic.

Blejer, Mario I.

PD December 1989. **TI** Adjustment Uncertainty, Confidence, and Growth: Latin America After the Debt Crisis. **AU** Blejer, Mario I.; Ize, Alain. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/105; International Monetary Fund, Washington, DC 20431. **PG** 33. **PR** not available. **JE** 441, 112, 121. **KW** Debt Crisis. Capital Mobility. Savings. Investment. Developing Countries.

AB Usual interpretations of the debt crisis identify the fall in foreign savings as the determinant of lower investment. In contrast, this paper presents a systemic interpretation of the crisis, based on adjustment uncertainty and confidence failures, in which capital flight and the contraction of investment and foreign lending are various facets of the same phenomenon. After exploring the macroeconomics of confidence gaps, a model is presented that generates endogenous adjustment uncertainty and identifies a concept of vulnerability as a key determinant of adjustment dynamics. Various policies to reduce vulnerability are reviewed, with particular emphasis on fiscal adjustment, indexation, and liberalization.

Bloch, Ernest

PD July 1989. **TI** Calculating the Weighted Average Cost of Capital: A Pedagogic Note. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 528; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 16. **PR** no charge. **JE** 514, 521, 522, 511. **KW** Capital Markets. Bonds. Business Finance. Investment. Securities.

AB In the treatment below emphasis is placed on the required forecast of the new issue rate prior to flotation. In conjunction with that forecast, a decision mechanism is developed to illustrate how management decides whether to issue -- or not to issue -- the new security. An operating question that must be answered is whether or not an upper limit is set on WACC; how that limit is set; and who makes these decisions.

Blomstrom, Magnus

PD October 1989. **TI** Multinational Corporations and Productivity Convergence in Mexico. **AU** Blomstrom, Magnus; Wolff, Edward N. **AA** Blomstrom: Stockholm School of Economics. Wolff: New York University. **SR** New York University Economic Research Reports: 89-28; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 35. **PR** none. **JE** 442, 226, 621, 631. **KW** Productivity. Development. Mexico. Manufacturing. Multinational Firms. Foreign Ownership. Technology.

AB This paper examines the impact of the operations of foreign-owned multinational firms on the productivity growth of Mexican manufacturing industries, 1965-1984. It investigates both the extent to which the penetration of a sector by foreign-owned firms affects the productivity of local firms in that sector and whether there is any evidence of convergence between that industry's productivity level and that of the United States. The main results indicate that productivity levels of locally-owned firms in Mexico have converged to those of foreign-owned firms. Also, both the rate of productivity growth of local firms and their rate of catch-up to the multinationals are positively related to the degree of foreign ownership of an industry.

Bloom, David E.

PD July 1989. **TI** An Analysis of the Earnings of Canadian Immigrants. **AU** Bloom, David E.; Gunderson, Morley. **AA** Bloom: Columbia University. Gunderson: University of Toronto. **SR** Columbia Department of Economics Working Paper: 437; Department of Economics, Columbia University, New York, New York 10027. **PG** 24. **PR** $5.00. **JE** 823, 824. **KW** Immigrants. Labor Mobility. Income Distribution. Employment. Wages.

AB This paper reports estimates of simple wage equations fit to cross sectional and pseudo-longitundinal data for Canadian immigrants in the 1971 and 1981 Canadian censuses. The estimates are used to assess (1) the usefulness of cross sectional analyses for measuring the pace of immigrants earnings growth, (2) the labor market implications of admissions policies that place different weight on the work skills possessed by prospective entrants, and (3) the relative impact of selective outmigration and job matching on the shape of immigrant earnings distributions as duration of stay increases.

Blundell, Richard

PD July 1989. **TI** Investment and Tobin's Q: Evidence from Panel Data. **AU** Blundell, Richard; Bond, Stephen; Devereux, Michael B.; Schiantarelli, Fabio. **AA** Blundell: University College London. Bond: Oxford University. Devereux: Institute for Fiscal Studies. Schiantarelli: Boston University. **SR** University College London Discussion Paper: 89-16; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 36. **PR** 2.00 pounds. **JE** 522, 229, 511, 514. **KW** Business Investment. Panel Data.

AB A Q model of investment is estimated using data for an unbalanced panel of UK companies over the period 1975-86. Correlated firm-specific effects and the endogeneity of Q are allowed for using a Generalized Method of Moments estimator. In the calculation of Q we estimate the tax incentives available to individual companies and account for the possibility of tax exhaustion. Q is found to be a significant factor in the explanation of company investment, although its effect is small and a careful treatment of the dynamic structure of Q models appears critical. In addition to Q, both cash flow and output variables are found to play an independent and significant role.

PD July 1989. **TI** A Microeconometric Model of Intertemporal Substitution and Consumer Demand. **AU** Blundell, Richard; Browning, Martin; Meghir, Costas. **AA** Blundell and Meghir: University College London and Institute for Fiscal Studies. Browning: McMaster University and Stanford University. **SR** University College London Discussion Paper: 89-11; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 35. **PR** 2.00 Pounds. **JE** 921. **KW** Intertemporal Substitution. Consumer Demand. Households. Engel Curves. Aggregation Bias.

AB In this paper we investigate the relationship between within-period preferences and the degree of intertemporal substitution. We first present a theoretical discussion which

argues that the form of within-period preferences and the way these differ across consumers may have important consequences for the formulation and specification of intertemporal models. We then apply this methodology to a detailed study of disaggregate household expenditure patterns using a pooled cross-section of some 70,000 households across 15 years. Our objective is to assess the degree of intertemporal substitution across different household types avoiding aggregation bias and accounting for nonadditive within-period preferences and nonlinearity in Engel curves.

Bodilly, Susan J.

TI The Defense Department's Support of Industry's Independent Research and Development (IR&D). **AU** Alexander, Arthur J.; Hill, Paul T.; Bodilly, Susan J.

Bodnar, Gordon M.

PD September 1989. **TI** Effects of the International Economy on Domestic Industries: Tests Using Financial Data. **AU** Bodnar, Gordon M.; Gentry, William M. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 106; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 43. **PR** $3.00. **JE** 431, 441. **KW** Exchange Rates. Stock Market. International Markets. Industry Shocks.

AB This paper tests whether shocks in the international economy affect the stock market valuation of domestic industries in Canada, Japan and the US. We consider two sources of innovations: price changes caused by exchange rate movements and industry specific shocks. In the framework of an augmented market model, we find that exchange rate movements are important for explaining some industry returns and that across the economy as a whole these effects are systematically related to industry characteristics. The tests for industry specific shocks show that for half of the industry groupings an international industry component explains over 40% of the variance in industry residuals.

Boldrin, Michele

PD December 1988. **TI** Equilibrium Models Displaying Endogenous Fluctuations and Chaos: A Survey. **AU** Boldrin, Michele; Woodford, Michael. **AA** Boldrin: University of California, Los Angeles. Woodford: University of Chicago. **SR** University of California at Los Angeles Department of Economics Working Paper : 530; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 54. **PR** $2.50. **JE** 131, 133, 023. **KW** Economic Shocks. Fluctuations. Business Cycles.

AB The idea that market mechanisms are inherently dynamically unstable has not played a great role in studies of aggregate fluctuations over the past quarter century. Instead, the dominant strategy, both in equilibrium business cycle theory and in econometric modelling of aggregate fluctuations, has been to assume model specifications for which equilibrium is determinate and intrinsically stable, so that in the absence of continuing exogenous shocks the economy would tend toward a steady state growth path. The existence of a stationary pattern of fluctuations is then attributed to the existence of exogenous shocks of one kind or another most often either technology or taste shocks, or stochastic shifts in government policies.

Bonanno, Giacomo

PD October 1989. **TI** If He Does Not Know, Will He Know That He Does Not Know?. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 345; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 25. **PR** no charge. **JE** 026. **KW** Commitment. Observability. Knowledge.

AB The object of this paper is a form of commitment - the choice of a pre-emptive action by a potential victim - whose purpose is to deter a potential aggressor from taking an aggressive action. We examine the issue of observability and notice the following: if there is a positive probability that the pre-emptive action is not observed by the aggressor, then one can envision two situations. In the "reflective" situation when the aggressor does not observe the victim's pre-emptive action he nevertheless is aware that the victim had the option of taking action and therefore he "knows that he does not know whether the victim did or did not take the action". In the "thoughtless situation" there is a normal state of affairs, corresponding to the case where the victim is passive, and the aggressor assumes that this is the state of affairs confronting him, unless he actually observes the contrary.

PD November 1989. **TI** The Logic of Rational Play in Games of Perfect Information. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 347; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 39. **PR** no charge. **JE** 026. **KW** Rational Solution. Extensive Games. Game Theory.

AB Ever since Nash's original contribution (Nash, 1951), game theorists have been searching for an equilibrium concept which expresses the notion of rational behavior in situations where many rational agents interact. A basic tenet in the literature is that if a "rational solution" exists, it must be a Nash equilibrium. The informal argument which supports this conclusion is known as the "Transparency of Reason" argument and goes as follows: if all players reason in the same way and start from the same data and hypotheses, then they must all reach the same conclusion. In particular, each player must be able to duplicate the reasoning processes of her opponents and hence predict the strategies they will choose; it follows that the strategy she herself chooses must be a best reply to the strategies of her opponents. The consensus view, however, is that not all Nash equilibria can be considered rational solutions.

Bond, Stephen

TI Investment and Tobin's Q: Evidence from Panel Data. **AU** Blundell, Richard; Bond, Stephen; Devereux, Michael B.; Schiantarelli, Fabio.

Bora, Bijit K.

PD December 1988. **TI** Tariffs and Smuggling in a Model of Differentiated Products Trade. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 173; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 20. **PR** no charge. **JE** 422, 916, 411. **KW** Tariffs. Free Trade. Smuggling.

AB This paper adopts a simple Chamberlain-Ricardian model of trade and analyzes the impact of tariffs and tariff evasion. While confining the analysis to the small country case it is shown that the imposition of tariffs is welfare inferior to that of free trade. Furthermore, when agents decide to circumvent the

tariff it is shown that the welfare effects depend upon the nature of the smuggling activity. If the smuggling activity does not involve a domestic resource cost it is welfare improving if, and only if, the smuggled goods enter the country through a legal checkpoint. The welfare effects of any other type of smuggling is ambiguous because they involve a domestic resource cost, either through a direct transfer or in terms of trade loss, potentially offsetting the welfare gains from an effective tariff reduction.

Bordo, Michael. D.

PD June 1989. **TI** The Lender of Last Resort: Some Historical Insights. **AA** Rutgers University. **SR** National Bureau of Economic Research Working Paper: 3011; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** $2.00. **JE** 312, 311. **KW** Banking Crisis. Bailouts. Lending. Federal Reserve.
AB This paper discusses the role for a lender of last resort (LLR) in preventing banking panics (section I). Then briefly considers classical and more recent concepts of the LLR (section II). Section III examines historical evidence for the U.S. and other countries on the incidence of banking panics and LLR actions, and the record of alternative LLR arrangements in the U.S., Scotland and Canada, as well as the historical record on bailouts. Section IV offers some lessons from history.

Borjas, George J.

PD June 1988. **TI** Consumer Discrimination and Self-Employment. **AU** Borjas, George J.; Bronars, Stephen G. **AA** University of California, Santa Barbara. **SR** National Bureau of Economic Research Working Paper: 2627; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** $2.00. **JE** 824, 917, 821. **KW** Self-Employment. Income Distribution. Discrimination. Self-Selection.
AB Self-employment rates and incomes differ significantly by race. We show that these differentials arise in markets with consumer discrimination and incomplete information about the price of the good and the race of the seller. Equilibrium income distributions have two properties: mean black incomes are lower than mean white incomes, and the returns to ability are lower for black than for white sellers. Able blacks, therefore, are less likely to self-select into the self-employment sector than able whites. Using the 1980 Census data, we find that observed differences in the self-employment income distributions are consistent with the theoretical predictions.

Boskin, Michael J.

PD June 1988. **TI** An Analysis of U.S. Postwar Consumption and Saving: Part II Empirical Results. **AU** Boskin, Michael J.; Lau, Lawrence J. **AA** Boskin: National Bureau of Economic Research. Lau: Stanford University. **SR** National Bureau of Economic Research Working Paper: 2606; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 85. **PR** $2.00. **JE** 921, 132. **KW** Aggregation. Household. Consumption. Consumer Behavior.
AB A new empirical analysis of aggregate United States consumption and saving for the period 1947-80 is presented. The model is based on the theory of exact aggregation. It recognizes explicitly that households with different characteristics may be heterogeneous in their behavior and that aggregate behavior may depend on the changing composition of households by characteristics and therefore may not be adequately portrayed by a representative consumer, but otherwise it imposes minimal assumptions on household behavior. The model integrates longitudinal and cross-sectional microeconomic data on household characteristics with the traditional aggregate time-series data.

PD June 1988. **TI** An Analysis of Postwar Consumption and Saving: Part I The Model and Aggregation. **AU** Boskin, Michael J.; Lau, Lawrence J. **AA** Boskin: National Bureau of Economic Research. Lau: Stanford University. **SR** National Bureau of Economic Research Working Paper: 2605; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 55. **PR** $2.00. **JE** 921, 022, 132. **KW** Households. Consumption. Aggregation. Consumer Behavior.
AB A new empirical analysis of aggregate United States consumption and saving for the period 1947-80 is presented. The model is based on the theory of exact aggregation. It recognizes explicitly that households with different characteristics may be heterogeneous in their behavior and that aggregate behavior may depend on the changing composition of households by characteristics and therefore may not be adequately portrayed by a representative consumer, but otherwise it imposes minimal assumptions on household behavior. The model integrates longitudinal and cross-sectional microeconomic data on household characteristics with the traditional aggregate time-series data.

PD June 1988. **TI** Issues in the Measurement and Interpretation of Saving and Wealth. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2633; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** $2.00. **JE** 224, 221. **KW** Savings. National Wealth. Aggregation. National Income Accounts.
AB Alternative measures of saving are developed and compared to the traditional NIPA estimates. Various data sources and estimation methodologies all conclude that adjustments for net saving in durables, government capital, capital gains and losses, and revaluations are substantial. Various conceptual and measurement issues are discussed. Most important are: the appropriate level of aggregation across households of different age and type, sectors of the economy, and types of assets; and improved measures of personal income to include as much currently unrecorded income as possible.

Bovenberg, A. Lans

PD December 1989. **TI** National and Personal Saving in the United States: Measurement and Analysis of Recent Trends. **AU** Bovenberg, A. Lans; Evans, Owen. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/99; International Monetary Fund, Washington, DC 20431. **PG** 39. **PR** not available. **JE** 221, 921, 321. **KW** Savings. Capital Markets.
AB This paper analyzes several issues regarding the measurement of saving and concludes that the observed declines in national, private, and personal savings rates in the United States cannot be attributed to measurement problems. It then examines several factors that seem to have been behind the decline in U.S. personal saving. It suggests that structural changes in capital markets as well as improvements in wealth positions, in the living standards of the elderly, in social security pensions, and in private and public insurance

mechanisms all contributed to the declining trend in personal saving. Empirical results suggest that demographic factors may also have played a major role.

Boyer, Robert

PD January 1989. **TI** History of Techniques and Economic Theories: Towards a New Research Agenda. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8908; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 32. **PR** 20 ff. **JE** 226, 111, 621. **KW** Growth Theory. Technology. Productivity.

AB The breaking down of previous economic trends about growth and productivity defines a puzzle for most of prevailing economic theories. It might be an opportunity for economists to reconsider the links between long term growth and technological and industrial changes. The paper proposes first a survey of conventional growth theories and argues that they experience severe difficulties in explaining the succession of long up-swings and down-swings, as well as very contrasted national performances. Therefore, an alternative and tentative framework is elaborated. Starting from the radical uncertainty specific to structural, as opposed to marginal, technical choices, it adopts a bounded rationality approach, in order to build the notion of technical paradigm.

PD February 1989. **TI** Formalizing Long Run Dynamics: A Survey. **AU** Boyer, Robert; Malgrange, Pierre. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8906; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 58. **PR** 25 ff. **JE** 111, 621, 133, 023. **KW** Growth Theory. Technical Change. Long Run Growth. Macroeconomic Models. Dynamic Models.

AB Basically, the study of the long run aims at formalizing the two sided relationships between economic trends, institutions, demography, technology and ecology. It is first argued that the long run implicit in conventional macroeconomic models is mainly analytical and does not give information relevant for long run decision. The best prospective studies exhibit many methodological caveats and are melting a series of different approaches and tools. The temptation of an exhaustive description of detailed technical changes has to be resisted against; very costly to implement, the related results are generally rather disappointing. During the last decade, neo-schumpeterian models have provided new insights upon technological change, which could be plugged into long run models. Likewise, the economists could benefit from advances in the related areas of mathematical theory of dynamical systems, and consider demographical and ecological models.

PD February 1989. **TI** Kaldor's Growth Theories: Past, Present and Prospects. **AU** Boyer, Robert; Petit, Pascal. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8905; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 27. **PR** 20 ff. **JE** 111, 122, 226, 133, 023. **KW** Long Run Growth. Capitalism. Productivity. Growth Theory. Manufacturing.

AB All along his career, Nicholas Kaldor has recurrently dealt with factors explaining long run capitalist growth. After a short survey of his various models, the paper proposes an assessment of his last analyses about cumulative growth and dynamic increasing returns to scale. It is first argued that the inner mechanisms of these returns, however intuitive and suggestive, need to be clarified, leading to a more general form for productivity regimes, i.e., the equivalent of the so called Kaldor-Verdoorn relations. Second, his reduced form analysis has to be refined in order to deal more explicitly with the origins and the diffusion mechanisms of productivity increases, in quasi-closed or highly open economies. The related model is estimated first for US manufacturing from 1899 to 1976, for six European manufacturing sectors from 1960-1976, for twelve OECD countries from 1960-1986.

PD April 1989. **TI** The Eighties: The Search for Alternatives to Fordism. A Very Tentative Assessment. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8909; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 39. **PR** 20 ff. **JE** 611, 112, 511, 514. **KW** Mass Production. Specialization. Industrial Technologies. Growth Theory. Industrial Organization.

AB The paper studies the strength, the limits and therefore the likeliness of four possible new accumulation regimes respectively based upon the informational revolution "a la Schumpeter", a better democratization at the workplace, the breaking-down of mass production and emergence of flexible specialization, finally the constitution of a new international regime as a substitute to drastic industrial reorganization. The problem is related to conflicting conceptions about the roots of the present crisis. The corresponding strategies might have very opposite consequences about industrial organization, capital-labor relationship and type of competition. It is finally argued that the emerging industrial system will probably combine various features belonging to these different strategies.

Bradburd, Ralph

PD November 1989. **TI** Internal Rent Capture and the Profit-Concentration Relation. **AU** Bradburd, Ralph; Pugel, Thomas; Pugh, Katrina. **AA** Bradburd and Pugh: Williams College. Pugel: New York University. **SR** New York University Salomon Brothers Center Working Paper: 537; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 18. **PR** no charge. **JE** 521, 227. **KW** Market Power. Profits. Labor Costs. Market Concentration.

AB Economists have been performing industry level cross-section studies of the relation between market concentration and profitability for almost forty years. In regressing profit measures on concentration ratios and a variety of other structural variables, some economists have found the coefficient of the concentration ratio to be positive and significant, while others have found it to be insignificant or even significantly negative. The inconclusiveness of these studies reflects the problems that have plagued research on the profit-concentration relation: weaknesses in the basic theoretical models that motivate the empirical research, questionable econometric techniques, inadequate data, and mismeasurement of important variables. This paper focuses on the problem of mismeasurement of profits and the way in which this mismeasurement affects estimation of profit equations.

Brams, Steven J.

PD May 1989. **TI** Constrained Approval Voting: A Custom-Designed Election System. **AA** New York University. **SR** New York University Economic Research Reports: 89-11; New York University, Faculty of Arrts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 17. **PR** none. **JE** 025.

KW Social Choice. Voting. Approval Voting. Representation Problem.
AB A voting system is described that was designed for a professional association to ensure the equitable representation of different interests on its governing board. Approval voting, whereby voters can vote for as many candidates as they approve of, or find acceptable, was combined with constraints on the number that can be elected from different categories of members. These categories were defined by region and specialty and are illustrated by a 2 x 3 matrix.

PD June 1989. **TI** Sequential Arbitration Procedures. **AU** Brams, Steven J.; Kilgour, D. Marc; Weber, Shlomo. **AA** Brams: New York University. Kilgour: Wilfrid Laurier University. Weber: New York University. **SR** New York University Economic Research Reports: 89-13; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 31. **PR** none. **JE** 832, 026. **KW** Collective Bargaining. Arbitration. Game Theory. Incomplete Information.
AB Final-offer arbitration (FOA) is extended to allow participants to update their incomplete information--described by a probability distribution, which is common knowledge--about the position of an arbitrator. Under FOA, the arbitrator is restricted to choosing one or the other of the players so-called final offers; the winner is the player whose offer is closer to arbitrator's position. Sequential arbitration procedures extend FOA to allow the players, after simultaneously making their initial bids, to make new offers, starting with the player who loses initially (i.e., is farther from the arbitrator's position) and strictly alternating thereafter.

Brandenburger, Adam

PD August 1989. **TI** Correlated Equilibrium with Generalized Information Structures. **AU** Brandenburger, Adam; Dekel, Eddie; Geanakoplos, John. **AA** Brandenburger: Harvard Business School. Dekel: University of California, Berkeley. Geanakoplos: Yale University. **SR** Yale Cowles Foundation Discussion Paper: 884R; Yale University, Cowles Foundation, Box 2125, Yale Station, New Haven, CT 06520. **PG** 21. **PR** $2.00. **JE** 026, 022. **KW** Correlated Equilibria. Subjective Priors. Bounded Rationality.
AB We study the "generalized correlated equilibria" of a game when players make information processing errors. It is shown that the assumption of information processing errors in equivalent to that of "subjectivity" (i.e., differences between the players' priors). Hence a bounded rationality justification of subjective priors is provided. We also describe the set of distributions on actions induced by generalized correlated equilibria with common priors.

Branson, William H.

PD April 1988. **TI** On the Difference Between Tax and Spending Policies in Models with Finite Horizons. **AU** Branson, William H.; Galli, Giampaolo. **AA** Branson: Princeton University. Galli: Bank of Italy. **SR** National Bureau of Economic Research Working Paper: 2557; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 24. **PR** $2.00. **JE** 321, 133, 023. **KW** Taxes. Government Spending. Aggregate Demand. Fiscal Policy.
AB This paper uses the Blanchard (1985) finite horizon model to study how taxes and government spending can be managed to stabilize aggregate demand. It is shown that tax policy cannot stabilize demand in less time than it stabilizes the public debt, but that, if government spending is the instrument of policy, demand can be stabilized independently of the dynamics of the debt. These results imply that if the objective is to stabilize the debt while maintaining demand as close as possible to a pre-determined target path, and taxes are the instrument, taxes would have to be changed temporarily as much as feasible.

Bronars, Stephen G.

TI Consumer Discrimination and Self-Employment. **AU** Borjas, George J.; Bronars, Stephen G.

Browning, Martin

TI A Microeconometric Model of Intertemporal Substitution and Consumer Demand. **AU** Blundell, Richard; Browning, Martin; Meghir, Costas.

Brunello, Giorgio

PD September 1989. **TI** Bonuses, Wages and Performance in Japan: Evidence froom Micro Data. **AA** Osaka University and Centre for Labour Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 359; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 36. **PR** no charge. **JE** 824, 631, 821. **KW** Profit Sharing. Manufacturing. Labor Market. Wages. Employment.
AB The purpose of this paper is to test some of the implications of Weitzman's share economy in the Japanese context by using a panel of large manufacturing firms. There are three main results: First, the overall degree of profit sharing in the four selected industries is marginal, even more marginal in some industries than suggested by Freeman and Weitzman (1986). Second, conditional on wages, value added per employee has a positive and significant effect on bonuses only in one industry. In the remaining industries, bonuses are markups of wages. Third, there is a lot of heterogeneity, with an industry close to the "share" type and another industry close to the "wage" type. This paper suggests a number of possible explanations for this heterogeneity, including market structure, composition effects and industrial synchronisation of wage settlements.

Bulow, Jeremy

PD June 1988. **TI** Sovereign Debt: Is to Forgive to Forget?. **AU** Bulow, Jeremy; Rogoff, Kenneth. **AA** Bulow: Stanford University. Rogoff: University of Wisconsin, Madison. **SR** National Bureau of Economic Research Working Paper: 2623; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $2.00. **JE** 443, 121. **KW** International Lending. Developing Countries. Borrowing. Sovereign Debt.
AB International lending to a less developed country cannot be based on the debtor's reputation for making repayments. That is, loans to LDCs will not be made or repaid unless foreign creditors have legal or other direct sanctions they can exercise against a sovereign debtor who defaults. Even if some lending is feasible because of direct sanctions, having a reputation for repayment in no way enhances a small LDC's ability to borrow.

Burdett, Kenneth

TI Equilibrium Wage Differentials and Employer Size. **AU** Mortensen, Dale T.; Burdett, Kenneth.

Buzan, Barry

PD October 1989. **TI** The Impact of the Military Research and Development Priorities on the Evolution of the Civil Economy in Capitalist States. **AU** Buzan, Barry; Sen, Gautam. **AA** Buzan: University of Warwick. Sen: London School of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 339; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 33. **PR** $4.00. **JE** 114, 621, 051. **KW** Technological Change. Capitalism. Military Spending. Military Research. R&D.

AB Military priorities influence a significant proportion of the resources that capitalist societies devote to R&D. Some of the commanding heights of civil economies have been powerfully shaped by the opportunities created by specifically military R&D. This paper is an attempt to sketch the broadest dimension of "spin-off" from military R&D to the civil sector, namely the distortion of investment choices that arises from military underwriting of certain kinds of technological development, and to raise some possible questions for research and public policy. We start by looking at the general relationship between military and civil technology, at the different motives that drive innovation in the two sectors, and at the underlying theoretical links between these motives in capitalist societies.

Cabral, Luis

PD June 1989. **TI** Switching Costs and Bidding Parity in Government Procurement of Computer Systems. **AU** Cabral, Luis; Greenstein, Shane. **AA** Cabral: Stanford University and Universidade Nova de Lisboa. Greenstein: Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 168; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 18. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 322, 513, 616. **KW** Switching Costs. Bidding Parity. Procurement. Computers.

AB In the late 1970s, Federal agency computer users complained that the General Services Administration was not accounting for "conversion costs" when choosing among alternative suppliers of computer systems. This motivates our analysis of a general tradeoff in procurement between the costs of switching suppliers and the degree of "competitive behavior" elicited by the absence of incumbent advantages in a bidding game. Our analysis shows that arguments in favor of accounting for conversion costs were not sufficient to justify the change in the policies which took place. There are plausible circumstances in which switching costs should be estimated as best they can and used, and circumstances where they are best ignored.

Caillaud, Bernard

PD July 1989. **TI** The Role of Outside Considerations in the Design of Compensation Schemes. **AU** Caillaud, Bernard; Hermalin, Benjamin E. **AA** Caillaud: CEPREMAP. Hermalin: University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-121; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 50. **PR** $3.50. **JE** 026, 022. **KW** Principal-Agent Models. Third Party. Incomplete Information.

AB We analyze a principal-agent model under incomplete information where the principal anticipates future interaction with a third party (e.g., regulators, the financial markets, or product market competitors). Knowledge of the information affects the third party's strategy in the future interaction. Consequently, output targets given the agent and the agent's compensation schedule can differ from the "no-third-party" situation; the motivation being the concealment of information when the third party's knowledge of that information is detrimental to the principal. We show that equilibrium contracts are sensitive to what aspects of the contracting game between principal and agent are observable by the third party.

Caminal, Ramon

PD July 1989. **TI** Competition in Spanish Banking. **AU** Caminal, Ramon; Gual, Jordi; Vives, Xavier. **AA** Caminal and Vives: Universitat Autonoma de Barcelona. Gual: IESE. **SR** Centre for Economic Policy Research Discussion Paper: 314; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 41. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 312, 314. **KW** Banking. Commercial Banks. Financial Markets. Spain.

AB We assess the state of competition in the Spanish banking system at the dawn of the integration of the European financial market. Banking in Spain has undergone a strong liberalization process in the last fifteen years, which has accelerated recently, evolving from a situation of tight regulation and protection from competition. The outcome of this process is a changing sector in which the recent merger attempts are the most visible phenomena. In the paper we analyze the recent history of the industry as well as the current situation by using the tools of both finance and industrial organization. Our objectives are to provide basic evidence, pose some fundamental issues and problems, survey, and extend wherever possible the existing work, and try to draw a coherent picture of Spanish banking.

Canning, David

PD May 1987. **TI** Optimal Monetary Policy in a Market Clearing Economy with Supply Shocks. **AA** Pembroke College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 110; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 22. **PR** $4.00, checks payable to University of Cambridge. **JE** 133, 311, 023. **KW** Monetary Policy. Supply Shocks. Contingent Markets. Competitive Equilibrium.

AB In the absence of complete contingent markets the competitive equilibrium of an economy with supply shocks is usually inefficient. Optimal monetary policy should not only aim at reducing deviations from the competitive equilibrium, due to slow wage adjustment, but also try to provide the missing insurance against shocks. A rational expectations, market clearing, log-linear macromodel, with random supply shocks, is constructed from microeconomic foundations. A simple monetary rule, a deterministic function of past prices, is shown to be Pareto efficient and to Pareto dominate a fixed money stock rule.

PD September 1989. **TI** Optimal Monetary Policy and Missing Markets. **AA** London School of Economics. **SR** London School of Economics Centre for Labour

Economics Discussion Paper: 358; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 18. **PR** no charge. **JE** 824, 133, 131. **KW** Labor Supply. Business Cycles. Monetary Policy. Employment.

AB In real business cycle models with spot markets agents respond optimally to fluctuations by varying their labor supply. While this is individually optimal the employment volatility which results is inefficient; the inefficiency is due to the lack of forward markets for labor and the consequent inability of the young to insure against future shocks. A real business cycle model is constructed in which an active monetary policy, accomodating past price shocks to prevent the expectation of price reversion, Pareto dominates a stable money stock by stabilizing employment over the cycle.

Card, David

TI The Effects of Inmigration on the Labor Market Outcomes of Less-Skilled Natives. **AU** Altonji, Joseph; Card, David.

Carlos Martinez

TI The Limits of Reciprocity: Solution Concepts and Reactive Strategies in Evolutionary Equilibrium Models. **AU** Coll, Juan; Carlos Martinez; Hirshleifer, Jack.

Carroll, Raymond J.

TI Biased Crossvalidation for a Kernel Regression Estimator and its Derivatives. **AU** Hardle, Wolfgang; Carroll, Raymond J.

Carter, Susan B.

PD December 1989. **TI** The Labor Market in the 1890s: Evidence from Connecticut Manufacturing. **AU** Carter, Susan B.; Sutch, Richard. **AA** Carter: Smith College. Sutch: University of California, Berkeley and National Bureau of Economic Research. **SR** University of California at Berkeley Working Paper in Economics: 89-125; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 11. **PR** $3.50. **JE** 042, 821, 824. **KW** Wages. Recession. Plant Closures. Labor Productivity. Unemployment. Labor Market.

AB Monthly data for 1893 and 1894 on production, employment, hours, and pay collected in a unique survey of manufacturing firms by the Connecticut State Bureau of Labor Statistics is used to explore several stylized facts about the response of turn-of-the-century labor markets to recession. During the Depression of 1893 these Connecticut firms relied to an extraordinary extent on hours reductions as a method of reducing labor input. Often this was accomplished by suspensions of operations, plant closings which idled the entire workforce. Labor productivity was countercyclical, opposite of the modern pattern. Average nominal hourly wages rose with the depression which might indicate a preferential treatment of skilled workers. Nominal wage cutting was surprisingly absent.

Cave, Jonathan A. K.

TI Research Planning for Food Safety: Preliminary Methodology and Applications. **AU** Hammitt, James K.; Cave, Jonathan A. K.; Mustafa, Mohammad, G.; Valdez, R. Burciaga.

Chandrakantha, M. S. Leslie

PD November 1989. **TI** On the Use of Variance Ratios in the Analysis of Nonstationary Time Series. **AU** Chandrakantha, M. S. Leslie; Mehta, J. S.; Swamy, P. A. V. B. **AA** Chandrakantha and Mehta: Temple University. Swamy: Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 97; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash., DC 20551. **PG** 25. **PR** no charge. **JE** 211. **KW** Random Walk. Variance Ratio Test. Power Functions. Time Series. Distribution Theory.

AB It is often desired to measure the size of a random walk component in a time series, or to test the null hypothesis that a time series is generated by a random walk. Recently, the variance-time function (the variance of the difference between two variables that are k periods apart viewed as a function of k) has received attention in that capacity. This paper makes two main contributions to the literature. First, we show that a popular measure of the size of a random walk component is subject to severe problems of interpretation. Second, we develop the exact finite sample distribution theory of the popular variance ratio test by characterizing analytically the distributions of the test statistic under the null and alternative hypotheses and studying the corresponding power functions.

Chang, Roberto

PD May 1989. **TI** Endogenous Currency Substitution, Inflationary Finance, and Welfare. **AA** New York University. **SR** New York University Economic Research Reports: 89-12; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N. Y. 10003. **PG** 33. **PR** none. **JE** 431, 311, 134, 023. **KW** Currency. Inflation. Macroeconomic Policy.

AB In some inflationary countries, a foreign currency has replaced the domestic currency as a store of value, unit of account, and even means of payment. This paper studies the relationship between this "currency substitution" (CS) phenomenon and the theory of inflationary taxation finance. CS poses several problems to our understanding of inflationary taxation because it implies that some agents choose to evade the inflation tax. The following questions arise: How does CS limit the government power to impose the inflation tax? If some agents can evade the tax, who pays the tax? What are the welfare effects of policies that deal directly with CS.

PD June 1989. **TI** Monopolistic Competition, Overlapping Generations, and the Role of Monetary Policy. **AA** New York University. **SR** New York University Economic Research Reports: 89-16; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 22. **PR** none. **JE** 311, 131, 023. **KW** Overlapping Generations Model. Monopolistic Competition. Monetary Policy. Inflation.

AB This paper studies a simple overlapping generations model (OGM) with monopolistic competition in goods markets. I show that the set of rational expectations equilibria of the model can be characterized by a simple difference equation in the real quantity of money, in the same way as the standard, competitive OGM. The monopolistic competition case results, however, in less output, less consumption, and lower welfare relative to the competitive case. The model is then used to reexamine some issues of monetary policy. Previous studies have stressed that the existence of imperfect competition in

goods markets may justify activist monetary policy.

PD November 1989. **TI** Financial Integration With and Without International Policy Coordination. **AA** New York University. **SR** New York University Economic Research Reports: 89-29; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 39. **PR** none. **JE** 441, 432, 423, 411, 321. **KW** Financial Integration. Policy Coordination. Capital Mobility. Fiscal Policy. Government Policy.
AB This paper studies the relationship between international capital mobility and international policy coordination. I show that: (i) a regime with capital mobility results in higher welfare levels than a regime without it provided that governments coordinate their macroeconomic policies, and that (ii) in the absence of policy coordination, capital mobility results in lower welfare levels than portfolio autarky. These results follow from the fact that financial integration enhances the impact of domestic government financial policies on foreign interest rates, real allocations, and welfare. Therefore, financial integration increases the welfare losses from noncooperative policymaking.

Chemmanur, Thomas, J.

PD May 1989. **TI** The Pricing of Initial Public Offerings: A Dynamic Model with Information Production. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 521; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 56. **PR** no charge. **JE** 514, 522, 511, 521. **KW** Business Finance. Common Stock. Business Investment. Capital Markets.
AB Practitioners often argue that firms deliberately underprice new issues so as to generate a large price rise for their equity in the secondary market. This behavior would be irrational if there are no interactions between the price shares in the new issues market and the secondary market. In this paper we present a model in which such behavior emerges as a rational strategy for maximizing cashflows to firm insiders over multiple equity offers. In our model, firm insiders sell equity both in the new issues market and in the secondary market, have superior information about their firm and unlike in signalling models, outside investors are able to expend resources to produce additional information about the firm.

Chen, Fangruo

PD May 1989. **TI** Resolving Paradoxical Centipedes Behavioristically or by Unilateral Predonations. **AU** Chen, Fangruo; Sertel, Murat R. **AA** Chen: Bogazici University and University of Pennsylvania. Sertel: University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-08; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 21. **PR** no charge. **JE** 026. **KW** Nash Equilibrium. Noncooperative Games. Cournot Equilibrium.
AB The well-known failure of the Cournot (1838)-Nash (1951) solution to guarantee a Pareto efficient outcome for the players of a game has found expression in many eloquent forms, perhaps the most succinct of which is the classical Prisoners' Dilemma, attributed by Luce and Raiffa (1957) to A.W. Tucker. The occasion for the present paper, however, is Rosenthal's (1981) perfect information game in extensive form nicknamed the "centipede", for whose paradox Rosenthal proposed a method of resolution. The paradox in this many stage game is again that Cournot-Nash equilibria are Pareto inferior. But if players model choice as erratic, so that in future stages the moves to be made may diverge from the "principal" (backward induction) equilibrium, then at early stages it may be rational to purposely diverge from such an equilibrium, and so the players noncooperatively may be vindicated of the ill fortune of the principal (Cournot-Nash) equilibrium.

Chesnutt, Thomas W.

PD October 1988. **TI** The Market Responses to the Government Regulation of Chlorinated Solvents: A Policy Analysis. **AA** Rand Corporation. **SR** Rand Paper: P-7548; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 126. **PR** not available. **JE** 613, 631. **KW** Regulation. Environment. Toxic Substances. Government Policy.
AB Under the Toxic Substances Control Act, the Environmental Protection Agency must oversee a wide range of chemicals that may harm people or the environment. Because users of a chemical can substitute other chemicals, regulatory analysis must account for the second order effects of regulation on the other chemicals. This paper argues that implicit tradeoffs among chemicals occur repeatedly as the response of economic markets to government regulation. For this reason, it recommends that such tradeoffs be formally incorporated into the analysis of regulatory alternatives. Using publicly available historical data on chemical markets, the study builds a methodology to formally handle economic interrelationships among chemicals.

Chestnutt, Thomas

TI Recruiting Effects of Army Advertising. **AU** Dertouzos, James N.; Polich J. Michael; Bamezai, Anil; Chestnutt, Thomas.

Choi, I.

TI Asymptotic and Finite Sample Distribution Theory for IV Estimators and Tests in Partially Identified Structural Equations. **AU** Phillips, Peter C. B.; Choi, I.

Chvatal, V.

PD May 1989. **TI** A Class of Perfectly Orderable Graphs. **AA** Rutgers University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89573-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 4. **PR** no charge. **JE** 213. **KW** Bipartite Graph. Orderable Graphs.
AB A characterization of totally balanced matrices amounts to asserting that a bipartite graph contains no hole if and only if its complement is perfectly orderable; thus it characterizes by forbidden induced subgraphs the class of all perfectly orderable graphs whose complements are bipartite. This result and a previously known lemma on bull-free graphs suffice to characterize by forbidden induced subgraphs a larger class of perfectly orderable graphs.

Clark, Andrew

PD August 1989. **TI** Efficient Bargains and the

McDonald-Solow Conjecture. **AA** London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 350; Centre for Labour Economics, London School of Economics, Houghton Street, London, WC2A 2AE U.K. **PG** 37. **PR** no charge. **JE** 831, 832, 824, 821. **KW** Trade Unions. Collective Bargaining. Wages. Employment.

AB The real world seems to be typified by bargains over wages and work practices rather than bargains over wages and employment, the latter being the subject of a paper by McDonald and Solow (1981). By treating work practices as a restriction on the labor-capital ratio we derive a 'crew size' contract curve which is not in general coincident with, or even close to, the contract curve that results from a bargain over w and N. The wage rigidity results derived by McDonald and Solow for their contract curve do not apply to this crew size contract curve. It does not seem to be easy to derive a rigid wage result from "real life" bargains.

Coate, Malcolm B.

PD October 1989. **TI** Antitrust Policy for Declining Industries. **AU** Coate, Malcolm B.; Kleit, Andrew N. **AA** Federal Trade Commission. **SR** Federal Trade Commission Bureau of Economics Working Paper: 175; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Ave. NW, Washington, D.C. 20580. **PG** 29. **PR** no charge. **JE** 612, 611. **KW** Mergers. Declining Industries. Antitrust Law.

AB In the 1980s, the antitrust enforcement agencies have rejected the idea that mergers in declining industries should receive special consideration. This paper develops reasons why declining industry mergers should not be subject to a high degree of antitrust scrutiny. It argues that the gains to consumers through such interventions suggested by the "price test" are illusionary. Further, recent game-theoretic literature implies that important efficiencies are available through merger in declining industries. The paper presents a method for determining which type of industry structures are likely to be subject to these efficiencies.

Cocchi, Daniela

PD 1989. **TI** Approximations of Bayesian Solutions in Finite Population Models. **AU** Cocchi, Daniela; Mouchart, Michel. **AA** Cocchi: University of Bologna. Mouchart: University Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8905; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 28. **PR** no charge. **JE** 211. **KW** Bayesian Analysis. Bayesian Statistics. Finite Populations. Hierarchical Models.

AB In this paper a Bayesian least squares approximation is proposed for the descriptive inference in a finite population when a categorical auxiliary variable is known. For such a population, a hierarchical model II analysis of variance is assumed. The solution consists in a projection not only on the observations, i.e. the vector of group totals, but also on the between and within sum of squares. The approximation can therefore be seen as a normal approximation of the joint distribution of the above statistic and the parameter of interest, conditionally on two discrete variables that denote the attribution to one group and the selection in the sample.

Coe, David T.

TI A Systems Approach to Estimating the Natural Rate of Unemployment and Potential Output for the United States. **AU** Adams, Charles; Coe, David T.

Coggins, Jay S.

PD August 1989. **TI** On the Welfare Consequences of Political Activity. **AA** University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 89-6; 231 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 50. **PR** free. **JE** 021, 025, 024. **KW** Political Economy. Lobbying. Government Policy.

AB When economic actors are also allowed to become politically active, perhaps to influence a government price policy, they face decision problems with essentially simultaneous political and economic features. If, in addition, two groups struggle to pull the administered price level in opposite directions, an important strategic component is introduced. On two levels, then, such situations depart from the competitive economy framework of Arrow and Debreu. The model of this paper is designed to reconcile the general equilibrium model with politically active interest groups. This model is then used to assess the welfare consequences of such lobbying activity.

Cohen, Darrel

PD October 1989. **TI** A Comparison of Fiscal Measures Using Reduced-Form Techniques. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 100; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 42. **PR** no charge. **JE** 321. **KW** Fiscal Measures. Fiscal Policy.

AB This paper presents empirical evidence, based on reduced-form regression analysis of the period 1962-1986, indicating that a new fiscal indicator, F1, is a better summary measure of the short-run real effects of discretionary fiscal policy than is the change in the high-employment budget. The paper also discusses and updates earlier work of Modigliani and Ando in which three main problems with the traditional reduced form approach in the macroeconomic setting are identified. The problem of measurement error is addressed by comparing several indicators of fiscal and monetary policy; the problem of omitted exogenous variables by inclusion of MPS model residuals for consumption, investment, and net exports; the problem of policy endogeneity by estimation of fiscal policy reaction functions.

Coll, Juan

PD December 1989. **TI** The Limits of Reciprocity: Solution Concepts and Reactive Strategies in Evolutionary Equilibrium Models. **AU** Coll, Juan; Carlos Martinez; Hirshleifer, Jack. **AA** Coll: Universidad de Malaga. Hirshleifer: University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 577; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 55. **PR** $2.50. **JE** 026. **KW** Evolutionary Models. Evolutionary Games. Game Theory.

AB The Nash condition is not sufficiently strong for evolutionary equilibrium. An evolutionary equilibrium must be

an attractor, that is, must have a convergency zone (under the dynamic process postulated) that consists of all the points in its neighborhood. Such an attractor may be an Evolutionary Equilibrium Point (EEP) or an Evolutionary Equilibrium Region (EER); no single point in an EER has a full convergency zone, but the region as a whole attracts all the trajectories in its neighborhood. Equilibrium states were evaluated for round-robin tournaments in Prisoners' Dilemma and Chicken environments.

Colombino, Ugo

PD November 1989. **TI** The Effect of Taxes on Labor Supply in Italy. **AU** Colombino, Ugo; Del Boca, Daniela. **AA** Colombino: Universita di Salerno. Del Boca: Politecnico di Milano. **SR** New York University Economic Research Reports: 89-30; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 40. **PR** none. **JE** 821, 323, 824. **KW** Labor Supply. Taxation. Tax System. Employment.

AB In this research we estimate a neoclassical household labor supply model for married individuals, incorporating the main elements of the tax system, using Italian microdata. We found that while the labor supply of women is rather elastic with respect to wages and income variation, men's labor supply is inelastic with respect to variation in both. We use these results to measure the behavioral and welfare effects of alternative tax systems: the actual tax system, where the unit of taxation is the individual; joint family taxation; and a flat tax. The simulations' results show that, relatively to the actual system, the joint tax implies a higher average social cost, but more equally distributed, while the flat tax implies a lower social cost, but less equally distributed.

Conrad, Jon M.

PD October 1988. **TI** Transfrontier Pollution: Cooperative and Noncooperative Solutions. **AU** Conrad, Jon M.; Scott, Anthony D. **AA** Conrad: Cornell University. Scott: University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-30; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 32. **PR** n/a. **JE** 722. **KW** Pollution. Air Pollution. Taxes.

AB A dynamic model of transfrontier pollution is constructed to analyze production and residual emission decisions for two countries under cooperative and noncooperative behavior. Each country must allocate marginal resources between more commodity production or more residual (emission) reduction. While each country produces a different commodity (say, nickel and electricity), the jointly-produced residual (say, sulfur oxide) is identical. After emission and transport, the residuals are subject to deposition and possible accumulation in both countries. Cooperative and noncooperative behavior may lead to steady state equilibria. A comparison of the equations defining such equilibria permits the identification of corrective taxes, which depend not only on marginal damage but on the rates of transport, degradation and discount as well.

Cooper, Russel J.

PD October 1989. **TI** A "Gormanesque" Approach to the Solution of Intertemporal Consumption. **AU** Cooper, Russel J.; Madan, Dilip B.; McLaren, Keith R. **AA** Cooper: University of Western Sydney. Madan: University of Maryland. McLaren: Monash University. **SR** Monash Department of Econometrics Working Paper: 7/89; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 29. **PR** no charge. **JE** 213, 022. **KW** Intertemporal Models. Stochastic Optimization. Stochastic Control Problems.

AB In this paper we compare the standard dynamic programming method for the derivation of closed form solutions to stochastic control problems with three alternatives. Our first alternative is a minor variant of dynamic programming which requires solution of an alternative partial differential equation. Our second alternative is based on intertemporal duality theory, and is most useful when preferences are represented by an indirect intertemporal expected utility (or value) function. Our third alternative is based on matching restrictions across inverse marginal instantaneous and indirect intertemporal expected utility functions.

Copeland, Brian R.

PD September 1988. **TI** A Theory of Trade Wars. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-29; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 33. **PR** n/a. **JE** 421, 422. **KW** Trade Barriers. Trade Policy.

AB Trade policy is modelled in an environment in which governments can only imperfectly monitor the protective effect of non-tariff trade barriers imposed by their trading partners. A multiperiod framework is adopted, and trigger strategies or contingent protection actions are used to support liberal trading regimes. In examples of this approach, it is shown how random shocks to demand, comparative advantage or exchange rates can trigger trade wars.

PD October 1988. **TI** Efficiency Wages in a Ricardian Model of International Trade. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-31; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 24. **PR** n/a. **JE** 824, 411, 821, 023. **KW** Efficiency Wages. Ricardian Model. International Trade. Trade Policy.

AB This paper examines the implications of efficiency wages for international trade in a simple extension of the Ricardian model, in which labor performs two different tasks in production, and where workers are imperfectly monitored in the performance of one of the tasks. As a result of the factor market distortion, the one-factor economy may behave like a Heckscher-Ohlin model. An important result is that transfers of income can have efficiency reducing effects, and hence standard aggregate analysis of trade policy may be inappropriate.

PD November 1988. **TI** Infant Industries, Direct Foreign Investment, and Asymmetric Information. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-32; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 33. **PR** n/a. **JE** 411, 422, 433. **KW** Infant Industries. Foreign Investment. Capital Market. International Trade. Protectionism.

AB This paper examines the role of capital market distortions in the infant industry argument for protection. A model of international trade and direct foreign investment is developed in which lenders are assumed to have relatively poor information about the riskiness of potential entrants into an

infant industry. It is shown that restrictions of direct foreign investment are potentially welfare-improving, but that tariffs need not be. This work is also relevant to the extensive literature on factor market distortions in international trade. In most previous work, ad hoc sectoral factor price differentials were simply imposed on a trade model. However, in the model of this paper, capital market distortions arise endogenously due to adverse selection.

Cornwell, Christopher

PD July 1989. **TI** Production Frontiers with Cross-Sectional and Time-Series Variation in Efficient Levels. **AU** Cornwell, Christopher; Schmidt, Peter; Sickles, Robin C. **AA** Cornwell: University of Georgia. Schmidt: Michigan State University. Sickles: Rice University. **SR** New York University Economic Research Reports: 89-18; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 40. **PR** none. **JE** 132, 226, 615. **KW** Productivity. Deregulation. Air Transportation. Airline Industry.

AB In this paper we consider the efficient instrumental variables estimation of a panel data model in which coefficients in addition to the intercept vary over individuals, and we apply the methodology we develop to a model in which there is cross-sectional and temporal variation in productivity levels (or, equivalently, in levels of technical efficiency), using data on U.S. airlines. We relax the assumption that technical inefficiency is time invariant, but in such a way as to not lose the advantages of panel data.

Cosh, A. D.

PD October 1988. **TI** Institutional Investment, Mergers and the Market for Corporate Control. **AU** Cosh, A. D.; Hughes, A.; Lee, Kevin; Singh, Ajit. **AA** University of Cambridget. **SR** University of Cambridge Department of Applied Economics Working Paper: 888; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 40. **PR** $4.00, checks payable to University of Cambridge. **JE** 522, 611, 313, 514. **KW** Corporate Control. Financial Institutions. Business Investment. Mergers.

AB The increasing importance of institutional investors as shareholders in individual companies has led to an important debate on their impact on corporate performance. In this paper, we focus on their role in the market for corporate control. This has so far been the subject of very little systematic investigation, despite its theoretical and practical significance. We consider the impact of financial institutions using two UK merger samples, and employing both univariate and multivariate techniques of analysis. In the first sample drawn from the low merger period 1981-83 pre- and post-merger differences are found between merging companies, with, and without a significant institutional presence. However, in the takeover boom year of 1986, from which the second sample is drawn, all such distinctions become blurred.

Coutts, Kenneth

PD May 1987. **TI** Industrial Pricing in UK Manufacturing Industry Under Conditions of "Stagflation". **AU** Coutts, Kenneth; Godley, Wynne; Moreno-Brid, Juan Carlos. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 881; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 39. **PR** $4.00, checks payable to University of Cambridge. **JE** 227, 631, 134, 131. **KW** Prices. Manufacturing. England. Inflation. Economic Fluctuations.

AB Most conventional economic theory attributes to price flexibility a key role in the process whereby economic systems may achieve equilibrium, although some distinguished theoreticians have taken a very different view. Moreover, in recent years the idea that prices clear markets has been seriously called into question by the very influential quantity rationing theories associated, most particularly, with the name of Edmond Malinvaud.

Cox, Brenda G.

PD November 1989. **TI** The National Survey of Small Business Finances: Description and Preliminary Evaluation. **AU** Cox, Brenda G.; Elliehausen, Gregory E.; Wolken, John D. **AA** Cox: Research Triangle Institute. Elliehausen and Wolken: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 93; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash., DC 20551. **PG** 24. **PR** no charge. **JE** 229, 521, 611, 613. **KW** Micro Data. Business Finance. Industrial Organization.

AB The Board of Governors of the Federal Reserve System and the Small Business Administration sponsored the National Survey of Small Business Finances (NSSBF) in 1988. The NSSBF collected data from a national sample of 3,600 small business firms inventorying their use of transaction accounts, other deposit and investment accounts, and credit services by source as well as obtaining a balance sheet, an income statement, and other characteristics of the business. A major concern of the study was to assess the degree to which small businesses rely on local commercial banks for credit, transactions, and deposit services, information that may have implications for public policy on mergers and deregulation in financial markets. This paper provides the first report of the purpose, content and basic procedures used for the survey and presents a preliminary discussion of the coverage and overall response.

Cragg, John G.

PD November 1988. **TI** Quasi-Aitken Estimation for Heteroskedasticity of Unknown Form. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-34; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 44. **PR** n/a. **JE** 211. **KW** Heteroskedasticity. Aitken Estimation. Maximum Likelihood Estimation.

AB Two modifications to standard Aitken estimation of heteroskedastic linear regressions is suggested: (a) different criteria for calculating unknown parameters to yield more efficient estimates of the regression coefficients when the form of heteroskedasticity is misspecified; (b) a different way of calculating the covariance matrix of the feasible Aitken estimator. A sampling experiment showed that the first adjustment could provide more efficient estimates than the usual procedure though not clearly more so than quasi-maximum likelihood or auxiliary variable estimation. The second adjustment is crucial for reliable inference, even when the form of heteroskedasticity is correctly specified.

Crane, Keith

PD November 1988. **TI** Soviet Economic Policy Towards Eastern Europe. **AA** Rand Corporation. **SR** Rand Note: N-2861; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 61. **PR** not available. **JE** 124, 321, 052. **KW** Soviet Union. Economic Policy. Government Policy.

AB The author presents measures of the costs of current Soviet economic policies with regard to Eastern Europe and discusses the methodology used to compute them. He considers reasons the Soviets have adopted their present economic policies toward Eastern Europe, and assesses Soviet economic policy options for dealing with Eastern Europe and their implications for the East European economies. Finally, he analyzes three alternatives open to the East European governments for coping with potential Soviet policy changes: restructuring trade with the Soviet Union, economic reform, and increasing investment.

PD January 1989. **TI** Defense and Eastern Europe: A Comment. **AA** The Rand Corporation. **SR** Rand Paper: P-7528; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 9. **PR** not available. **JE** 114. **KW** Military Spending. National Defense. Europe. Armed Forces. Government Policy.

AB Military spending in Eastern Europe in the 1980s has declined or stagnated according to this paper, which examines this trend in the context of research on defense inputs and outputs. It discusses what we know, compares indicators and their implications, and assesses constraints on military modernization imposed by demographic, social, and economic trends in Eastern Europe. The paper concludes with a discussion of ways in which Western policies could influence East European decisions on military allocations.

Currie, Janet

PD October 1989. **TI** Wages and Collective Bargaining Legislation: The Case for Compulsory Arbitration. **AU** Currie, Janet; McConnell, Sheena. **AA** Currie: University of California, Los Angeles. McConnell: London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 361; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 38. **PR** no charge. **JE** 822, 831, 832. **KW** Trade Unions. Wages. Arbitration. Collective Bargaining. Public Sector. Strikes.

AB There is a wide variation in collective bargaining legislation for public sector workers across accupations and regions in North America. This paper examines the impact of this legislation on wages using a large panel data set of public sector labor contracts. We find that workers with the right- to-strike and those who are subject to compulsory arbitration negotiate wages one and a half to three percent higher than those without recourse either to strike or to arbitration. There is no difference between the expected level of wages negotiated under the right-to-strike and the level negotiated under compulsory arbitration. The same factors determine the wages under both types of legislation.

PD October 1989. **TI** Strikes and Arbitration in the Public Sector: Can Legislation Reduce Dispute Costs?. **AU** Currie, Janet; McConnell, Sheena. **AA** Currie: University of California, Los Angeles. McConnell: London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 360; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 37. **PR** no charge. **JE** 832, 831, 822. **KW** Collective Bargaining. Trade Unions. Strikes. Arbitration.

AB Previous studies of dispute rates suggest that the adoption of compulsory arbitration legislation results in a higher dispute rate. In a departure from the previous literature on collective bargaining disputes we use contract level data to explicitly consider dispute costs as well as dispute rates. Our results seggest that although disputes are more likely under arbitration, they are sufficiently less costly that the total cost of collective bargaining breakdowns would be much reduced by the introduction of compulsory arbitration legislation.

d'Orey, Vasco

TI The Choice of Monetary Instrument in Two Interdependent Economies Under Uncertainty. **AU** Turnovsky, Stephen J.; d'Orey, Vasco.

Darby, Michael R.

TI Buffer Stock Models of the Demand for Money and the Conduct of Monetary Policy. **AU** Lothian, James R.; Darby, Michael R.; Tindall, Michael.

David, Paul A.

PD May 1989. **TI** Compatibility Standards and Information Technology--Business Strategies, Market Development, and Public Policies. **AU** David, Paul A.; Greenstein, Shane. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 159; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 20. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 621, 611, 612. **KW** Technology. Externalities.

AB This paper presents a synopsis of panelists' statements and discussions from the CEPR High Technology Impact Program conference, "Compatibility Standards and Information Technology: Business Strategy and Public Policy Issues," held February 24-25, 1989.

PD July 1989. **TI** Computer and Dynamo: The Modern Productivity Paradox in a Not-Too-Distant Mirror. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 172; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 67. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 621, 635, 122, 111. **KW** Innovations. Technology. Computers. Electricity. Electrical Power.

AB Many observers of contemporary economic trends have been perplexed by the contemporary conjuncture of rapid technological innovation with disappointingly slow gains in measured productivity. The purpose of this essay is to show modern economists, and others who share their puzzlement in this matter, the direct relevance to their concerns of historical studies that trace the evolution of techno-economic regimes formed around "general purpose engines". For this purpose an explicit parallel is drawn between two such engines--the computer and the dynamo. Although the analogy between information technology and electrical technology would have many limitations were it to be interpreted very literally, it nevertheless proves illuminating.

PD July 1989. **TI** Innovation Diffusion, Learning-By-Doing, and the Optimum Patent Life. **AU** David, Paul A.; Olsen, Trond E. **AA** David: Stanford University. Olsen: Norwegian Research Centre in Organization and Management. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 170; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 32. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 621, 612, 611, 022. **KW** Patents. Innovations. Monopoly.
AB This paper analyzes an often overlooked aspect of the patent system, namely, that the grant of a monopoly franchise for production of a new good could lead to a second-best welfare optimum even when there was no future prospect of inventions being induced by the promise of patent rights. The monopoly rights awarded by a patent may improve economic welfare relative to a regime of competitive supply when there are learning externalities or "spillovers" from the accumulation of experience in the process of production. It is shown that such welfare improvements may or may not be attainable, depending on the exact form of the learning function, and on conditions governing the demand for the new product.

PD August 1989. **TI** The Future of Path-Dependent Equilibrium Economics. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 155; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 31. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 011, 041, 621. **KW** Percolation Theory. Technological Change. Stochastic Models. Coordination Equilibria. Markov Process.
AB The purpose of this paper is to encourage further cooperation between economic theorists and applied economists of an historical persuasion. It emphasizes the variety and richness of dynamic problems in economics that possess a common structure arising from the interdependence of individual agents' choices under conditions of positive local feedback. These problems are shown to lend themselves to a research approach that explicitly allows for historical contingency, and many of them may be modelled as stochastic systems that are first-order markovian but possess a multiplicity of absorbing states. A heuristic model for dynamic process involving multiple coordination equilibria is drawn from the literature on additively interacting Markov processes; conditions are given for the ex ante predictability of the particular stable attractor towards which the process will converge.

PD August 1989. **TI** The ISDN Bandwagon is Coming--Who Will Be There to Climb Aboard?: Quanderies in the Economics of Data Communication Networks. **AU** David, Paul A.; Steinmueller, W. Edward. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 171; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 35. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 621, 612, 635. **KW** Telecommunication. Data Communication. Technological Change. Innovations. Communication.
AB The Integrated Services Digital Network (ISDN) is a "movement" seeking consensus among vendors and users of telecommunications equipment about future data communication networks. The current literature rarely considers what ISDN will mean for user organizations who are already engaged in building Local Area Networks (LANs) or in establishing connections with existing Wide Area Networks (WANs). This paper analyzes how the interaction between user demands and vendor solutions will shape the ISDN movement. In particular, the economic capabilities, decision making structures, and preferences that organizations have previously developed will influence the success of ISDN. Among the paper's conclusions: The acceptance of ISDN and ISDN services cannot be reliably predicted by examining technical designs.

Dawson, John C.

PD November 1989. **TI** The Flow-of-Funds Accounts, The United Nations' System of National Accounts and the Developing Countries. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/95; International Monetary Fund, Washington, DC 20431. **PG** 52. **PR** not available. **JE** 221, 223. **KW** Developing Countries. National Accounts. Accounting.
AB This paper considers flow-of-funds accounting and analysis in relation to the forthcoming revision of the United Nations' System of National Accounts (SNA), with emphasis on the problems faced by developing countries in this area. After a survey of the uses of flow-of-funds data, we conclude that these accounts should continue to have a central place in the SNA. Next, conceptual relations between the SNA and the flow-of-funds accounts are explored as well as the question of harmonization with the Fund's statistical systems. Finally, the feasibility of these accounts for developing countries is demonstrated by a sketch of appropriate estimation procedures.

De Grauwe, Paul

PD November 1989. **TI** On the Nature of Risk in the Foreign Exchange Markets: Evidence from the Dollar and the EMS Markets. **AA** Centre for Economic Policy Research. **SR** Centre for Economic Policy Research Discussion Paper: 352; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 38. **PR** $4.00. **JE** 431, 432, 411. **KW** Exchange Markets. Risk Premia. Expectations. EMS. Exchange Rates.
AB In this paper we analyze the behavior of the risk premia in exchange markets with very different exchange rate regimes: free floating (dollar markets), the low credibility EMS regime (e.g., Lira/DM and FF/DM) and the high credibility EMS regime (guilder/DM). We find that in the first and the third regime the risk premia behave in similar ways, i.e., they are negatively correlated with expected changes in exchange rates and vary more than expectations about future exchange rate movements. We interpret this evidence as being the result of the existence of a band of "agnosticism" within which movements of current exchange rates have little or no informational content about the market's expectations of future exchange rate movements.

de Palma, Andre

TI Social Surplus and Profitability Under Different Spatial Pricing Policies. **AU** Anderson, Simon P.; de Palma, Andre; Thisse, Jaques-Francois.

Deaton, A.

PD July 1989. **TI** On the Behavior of Commodity Prices. **AU** Deaton, A.; Laroque, G. **AA** Deaton: Princeton University. Laroque: INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8909; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 60. **PR** no charge. **JE** 721, 711, 715,

131. **KW** Commodity Prices. Inventories. Demand Function.
AB The theory of commodity price determination integrates supply and demand on the one hand with competitive storage (speculation) under rational expectations on the other. This paper derives from the theory testable implications on the behavior of prices, and makes a first attempt to confront them with the evidence. In this respect, we insist on the importance of nonlinearities associated with the non-negativity of inventories, as well as on the role of convexity of the aggregate demand function.

Dekel, Eddie

PD May 1989. **TI** Collusion Through Insurance: Sharing the Costs of Oil Spill Cleanups. **AU** Dekel, Eddie; Scotchmer, Suzanne. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-111; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 9. **PR** $3.50. **JE** 611, 613, 916. **KW** Collusion. Insurance. Oligopoly. Oil. Petroleum.
AB Firms in oligopoly could usually profit from collusion to reduce output. Oil spills disrupt supply, and it is therefore no surprise that oil spills increase oil companies' profits. In fact, oil companies may find it profitable in aggregate to reduce care so as to increase the frequency of spills. Since the spill is usually not profitable for the spiller, some enforcement mechanism is required. Sharing the costs of cleanup, which is "apparently" in the public interest, reduces incentives for care and facilitates collusion to disrupt supply through spills.

PD May 1989. **TI** Simultaneous Offers and the Inefficiency of Bargaining: A Two-Period Example. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-112; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 15. **PR** $3.50. **JE** 026, 022. **KW** Forward Induction. Bargaining. Principal-Agent Theory.
AB It is shown that the Pareto optimal outcomes in a two period simultaneous move bargaining model violate forward induction rationality when the players are sufficiently patient. This bargaining model describes a situation where the principal is represented by an agent whose flexibility is restricted. Hence, a bargaining process with such agents can create costly delays. The result also provides another example of the power of forward induction and stability.

TI Correlated Equilibrium with Generalized Information Structures. **AU** Brandenburger, Adam; Dekel, Eddie; Geanakoplos, John.

Del Boca, Daniela

TI The Effect of Taxes on Labor Supply in Italy. **AU** Colombino, Ugo; Del Boca, Daniela.

Dellas, Harris

PD June 1988. **TI** Self-Fulfilling Expectations, Speculative Attacks and Capital Controls. **AU** Dellas, Harris; Stockman, Alan C. **AA** Dellas: Vanderbilt University. Stockman: University of Rochester. **SR** National Bureau of Economic Research Working Paper: 2625; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 8. **PR** $2.00. **JE** 431, 311, 411. **KW** Exchange Rates. Monetary Policy. Capital Controls. Foreign Reserves. Economic Policy.
AB This paper examines the endogenous implementation of capital controls in the context of a fixed exchange rate regime. It is shown that if there exists a non-zero probability that the policymaker's response to a speculative attack on official foreign reserves will be the introduction of controls, such an attack may occur even when current and expected monetary policy is consistent with a permanently viable, control free fixed exchange rate regime. Consequently, capital controls may be the outcome of self-fulfilling expectations rather than the result of imprudent economic policies.

Delorme, Robert

PD May 1989. **TI** Patterns of the State-Economy Relationships: A Comparison Between France and the Federal Republic of Germany. **AU** Delorme, Robert; Andre, Christine. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8914; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 80. **PR** 25 ff. **JE** 822, 322, 821, 053. **KW** Government Spending. Labor Market. Economic Systems.
AB Public expenditure and public intervention on the labor market in France and Federal Republic of Germany are the two main areas compared in this paper. This comparison is conducted within the framework of the theory of the State-economy relationships which is itself under progress. The aim of this study is to assess the impact of the shocks of the seventies and of the current structural change on public interventions in the two countries. The first finding has to do with public expenditure growth. After an initial boost in both countries, it has slowed down earlier and to a greater extent in Federal Republic of Germany and then in France. According to the second finding, the changes in the patterns of the State-economy relationships are much smaller in Federal Republic of Germany than in France.

Demers, Fanny

PD September 1988. **TI** The Optimal Choice of Labor Supply Under Uncertainty: A Non-Expected Utility Analysis. **AU** Demers, Fanny; Demers, Michel. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-25; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 32. **PR** n/a. **JE** 821, 022, 026. **KW** Labor Supply. Utility Theory. Non-Expected Utility.
AB This paper adopts the multivariate non-expected utility approach recently proposed by Yaari [1986] to provide a complete characterization of the comparative statics effects of increases in risk, increases in risk aversion and risk inclination on the optimal choice of labor supply. We demonstrate that the comparative statics effects of Rothschild-Stiglitz mean preserving increases in risk in the distribution functions of the wage rate, tax rate, interest rate or nonwage income on the optimal choice of labor supply can be determined without restricting the ordinal utility function to be separable in consumption and leisure or imposing restrictions on risk aversion.

Demers, Michel

TI The Optimal Choice of Labor Supply Under Uncertainty: A Non-Expected Utility Analysis. **AU** Demers, Fanny; Demers, Michel.

Deneckere, Raymond J.

TI Bargaining and the Right to Remain Silent. **AU** Ausubel, Lawrence M.; Deneckere, Raymond J.

Dertouzos, James N.

PD January 1989. **TI** Recruiting Effects of Army Advertising. **AU** Dertouzos, James N.; Polich J. Michael; Bamezai, Anil; Chestnutt, Thomas. **AA** Rand Corporation. **SR** Rand Report: R-3577; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 40. **PR** no charge. **JE** 813, 114. **KW** Advertising. Military Sector. Military Forces. Recruitment. Armed Forces.

AB This report analyzes the effects of Army advertising on recruiting. It uses an econometric analysis of information describing advertising patterns for the three-year period from 1981 to 1984. A model that controls for economic conditions, local area characteristics, the magnitude and direction of recruiter effort, and levels of other recruiting resources permits identification of the independent effects of different advertising purchases on the short-run supply of high quality enlistments in the Army.

PD March 1989. **TI** The Effects of Military Advertising: Evidence from the Advertising Mix Test. **AA** Rand Corporation. **SR** Rand Note: N-2907; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 37. **PR** not available. **JE** 114, 531. **KW** Advertising. Armed Forces. Recruitment.

AB Advertising is one of the central recruiting tools used by the military services in support of the all-volunteer force. This note analyzes the effects of advertising on recruiting, providing quantitative estimates of the relative effectiveness of Army, Navy, Air Force, Marine Corps, and joint advertising programs. The findings indicate that, in general, the services gain enlistments from additional advertising, and the gains of any one branch do not seem to come at the expense (in terms of lost recruits) of any other. Not only are there no important interservice competitive effects of advertising, but the advertising done by a service apparently confers important benefits on the other branches as well.

Detemple, J.

PD August 1989. **TI** The Relevance of Financial Policy. **AU** Detemple, J.; Gottardi, Piero; Polemarchakis, H. M. **AA** Detemple and Polemarchakis: University of Columbia. Gottardi: Trinity College. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-262; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 24. **PR** no charge. **JE** 313, 311, 022. **KW** Financial Policy. Monetary Policy. Asset Markets. Equilibrium Allocations.

AB When the asset market is incomplete, equilibrium allocations are not invariant to changes in the financial policies of firms: in the presence of secondary assets, such as options, whose payoffs depend nonlinearly on the price of equity, the range of attainable reallocations of revenue varies as a firm alters its position in the asset market. Corporate financial policy is thus relevant. When assets are nominal, monetary policy implemented through open market operations is effective.

Devereux, Michael B.

TI Investment and Tobin's Q: Evidence from Panel Data. **AU** Blundell, Richard; Bond, Stephen; Devereux, Michael B.; Schiantarelli, Fabio.

PD November 1989. **TI** Capital Accumulation and the Current Account in a Two-Country Model. **AU** Devereux, Michael B.; Shi, Shouyong. **AA** Devereux: Queen's University. Shi: University of Toronto. **SR** Queen's Institute for Economic Research Discussion Paper: 761; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 33. **PR** $3.00 Canada and U.S.; $3.50 Foreign. **JE** 433, 441, 431, 111. **KW** Capital Accumulation. Current Account. Debtor Nation. International Markets.

AB This paper looks at the joint determination of international indebtedness and capital accumulation in a two-country model. National rates of time preference are endogenous, and adjust along an optimal path to come into equality with one another in the steady state. A country's level of indebtedness will be positively related to its degree of "impatience," positively related to its technology advantage, and negatively related to the share of government spending in GDP. The characteristics of short-run current account dynamics are crucially linked to world capital accumulation and to a country's long-run net external asset position. Steady state creditor countries tend to have current account surpluses during episodes of world output growth and vice versa for debtor countries. This gives rise to a possible nonmonotonic adjustment in the current account and in consumption.

Dierker, Egbert

PD September 1989. **TI** Competition for Customers. **AA** University of Vienna. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-244; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 24. **PR** no charge. **JE** 022, 611. **KW** Prices. Oligopoly. Market Share. Profits.

AB We consider an oligopolistic market with a given finite number of price setting firms. We study the dependence of the market share of a firm on its own price and give conditions on the distribution of consumers' characteristics such that the profit of a firm becomes a quasiconcave function of its price.

Diewert, W. E.

PD September 1988. **TI** The Early History of Price Index Research. **AU** Diewert, W. E.; **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-26; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 65. **PR** n/a. **JE** 227. **KW** Price Index.

AB This paper discusses five early approaches to the price (and quantity) index number problem. The five approaches are: (i) the fixed basket approach; (ii) the statistical approach; (iii) the test or axiomatic approach; (iv) the Divisia approach and (v) the economic approach. The economic approach makes use of the assumption of optimizing behavior under constraint and the approach is discussed under four subtopics. (i) basic theoretical definitions; (ii) the theory of bounds; (iii) exact index numbers and (iv) econometric estimation of preferences. The paper also discusses several topics raised by Jack Triplett in a recent paper, including: (i) the merits of the test approach to index number theory, (ii) the chain principle and alternatives to it; (iii) the substitution bias and (iv) the new good bias.

TI The Early History of Price Index Research. **AU** Diewert, W. E.;

Dohner, Robert S.

TI The U.S. and U.K. Activities of Japanese Banks: 1980-1988. **AU** Terrell, Henry S.; Dohner, Robert S.; Lowrey, Barbara R.

Doldberg, Linda S.

PD September 1989. **TI** Nominal Exchange Rate Patterns: Effects on Entry, Exit and Investment in United States Industry. **AA** New York University. **SR** New York University Economic Research Reports: 89-25; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 31. **PR** none. **JE** 431, 522, 521, 131, 133. **KW** Exchange Rates. Business Investment. Business Finance.
AB Nominal exchange rate trend and volatility are significantly correlated with entry, exit and investment in many sectors of United States industry. In general, business information and business failure rates were more sensitive to exchange rate patterns in the 1970s than in the 1980s. Industry responses to short-term trends in exchange rates were weaker in the 1970s than in the 1980s. Short-term exchange rate trend appreciations led to both contractions and expansions in the 1970s, but were more generally associated with investment expansions in the 1980s. In high dollar volatility periods, industries were more likely to contract investment in response to appreciations.

Donaldsen, David

TI Adult-Equivalence Scales and the Economic Implementation of Interpersonal Comparisons of Well-Being. **AU** Blackorby, Charles; Donaldsen, David.

Donaldson, R. Glen

PD October 1989. **TI** Money Moguls, Market Corners and Cash Collusion During Panics. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 110; Financial Research Center, Department of Economics, Princeton University, Princeton NJ 08544. **PG** 26. **PR** $3.00. **JE** 312, 313, 311. **KW** Banking. Financial Panic. Collusion. Bonds. Financial Crisis.
AB Dunn and Spatt's (1984) notion of monopoly control over the "marginal" supply of sinking fund bonds is applied to an analysis of collusive behavior during panics, in which panics are the result of marginal monopolies, or "corners", on the market for cash. While it is traditional to argue that cash suppliers pooled their reserves during banking and financial crises in an effort to reduce the severity of a panic, and thus increase their long run profits, this paper demonstrates that such collusion may actually increase the severity of a panic and can be best explained by the desire to maximize short run profits.

Donnenfeld, Shabtai

PD October 1989. **TI** The Multinational Corporation and Transfer Price Regulation with Imperfect Information. **AU** Donnenfeld, Shabtai; Pusa, Thomas J. **AA** Donnenfield: New York University. Pusa: State University of New York, Stony Brook. **SR** New York University Salomon Brothers Center Working Paper: 535; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 30. **PR** no charge. **JE** 422, 421, 411. **KW** Imports. Quotas. Trade Policy. Commercial Policy.
AB This paper examine host country government (HCG) regulation of imports resulting from intrafirm transactions involving subsidiaries located within and outside its borders. Regulating intrafirm transactions is accomplished by restricting the transfer price and imposing quotas. We construct and characterize the optimal regulatory scheme under imperfect information, i.e., when the HCG lacks access to cost data of the MNC's subsidiaries. This scheme induces the MNC to truthfully report its costs but involves production distortion. Furthermore, this scheme requires that the transfer price and the quantity of intrafirm trade decline with reported costs.

Dooley, Michael, P.

PD September 1989. **TI** Tax Credits for Debt Reduction: A Proposal. **AU** Dooley, Michael, P.; Helpman, Elhanan. **AA** Dooley: International Monetary Fund. Helpman: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 35-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 18. **PR** no charge. **JE** 441, 323, 112. **KW** Debtor Nation. Taxation. Debt. Investment. Tax Credits.
AB The incentives for domestic investment in debtor countries are influenced by the terms of their external obligations and by the system of taxation utilized to provide government revenue for debt payments. It is well known that existing debt contracts could be altered to improve the incentives for investment but this has proven difficult to accomplish, perhaps because individual creditors have incentives not to agree to such changes. In this paper we show that a simple credit scheme that can be implemented unilaterally by the debtor government can overcome at least some of the inefficiencies caused by existing debt contracts.

Dreyfus, Jean-Francois

PD July 1989. **TI** On Corporate Control and the Value of Voting Rights. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 526; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 41. **PR** no charge. **JE** 313, 522. **KW** Common Stock. Voting. Voting Stock. Asset Prices. Capital Markets.
AB We present a model of a competitive economy where consumers trade common stock in the knowledge that increased voting power confers greater influence on a firm's decisions. If trading is unhindered by short sales restrictions, financial markets are shown to allow for a decentralized solution to the unanimity problem. In equilibrium, all shareholders (after trading in financial markets) indeed unanimously support corporate decisions. In the presence of short sales restrictions, it is shown that voting stock may trade at a premium over non-voting stock even if both stock classes yield identical payoffs in all states of nature, a result which is ruled out by standard competitive asset pricing models but which is consistent with and provides a partial explanation for observed empirical regularities.

Dreze, Jacques H.

PD April 1989. **TI** The Role of Securities and Labour Contracts in the Optimal Allocation of Risk-Bearing.

AA Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8908; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 27. **PR** no charge. **JE** 824, 821. **KW** Asset Pricing Model. Labor Contracts. Risk Sharing. Labor Demand.

AB The paper extends the Capital Asset Pricing Model (CAPM) to production from labor inputs. Each asset is the equity of a firm which employs labor to produce output, and whose profits are equal to the value of its output minus its wage bill. Firms hire labor before observing the state. Labor contracts, specifying hours and wages in each state, permit risk sharing between workers and equity owners. Under the basic CAPM assumptions (mean-variance preference and complete markets for assets), efficient labor contracts offer to individual workers the choice of all convex combinations between a fixed wage and a wage proportional to aggregate output. The expected value of the wage indexed on aggregate output exceeds the fixed wage by a risk premium, which is the same per unit of variance as the risk premium of the market portfolio.

PD May 1989. **TI** Tales of Testing Bayesians. **AU** Dreze, Jacques H.; Mouchart, Michel. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8912; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 17. **PR** no charge. **JE** 211, 036. **KW** Bayesian. Test Statistics. Statistics. Econometrics.

AB Are classical test statistics of any use to Bayesian statisticians and econometricians? The modest aim of this paper is to illustrate, through elementary tales, why and how Bayesians may sometimes be led to use classical test statistics either in their usual form or in some suitably modified form.

Dubin, Jeffrey A.

PD February 1989. **TI** Incentives for Investment in Safety at Nuclear Power Plants: The Relative Importance of the Price-Anderson Act and State Regulatory Commissions. **AU** Dubin, Jeffrey A.; Rothwell, Geoffrey S. **AA** Dubin: California Institute of Technology. Rothwell: Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 151; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 19. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 612, 522, 723, 635. **KW** Regulation. Nuclear Power. Electricity.

AB The Price-Anderson Act has indemnified the commercial nuclear power industry since its inception. This article proposes a present value model of firm investment in reactor safety systems to investigate the safety incentives of the 1988 amendments to the Act. While the amendments increase safety incentives for electric utilities through insurance regulation, safety behavior depends crucially on the anticipated reaction of the state regulatory commission after a nuclear reactor accident.

PD July 1989. **TI** Subsidy to the Commercial Nuclear Power Industry Through the Price-Anderson Liability Limit. **AU** Dubin, Jeffrey A.; Rothwell, Geoffrey S. **AA** Dubin: California Institute of Technology. Rothwell: Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 169; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 9. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 723, 613, 916. **KW** Nuclear Power. Liability. Insurance.

AB Between 1959 and 1982, the Price-Anderson Act limited the liability of nuclear power plant operators for accidental damages to $560 million. This limit grew to $7 billion with the 1988 amendments to the Act. Using insurance premiums charged for the first $160 million of coverage and the Nuclear Regulatory Commission's estimate of the probability of a worse-case loss, we model the distribution of damages with a log-logistic density function. We find that the value of the Price-Anderson subsidy was $60 million per reactor per year before 1982, but dropped to $22 million with the 1988 amendments.

Dumenil, Gerard

PD May 1989. **TI** The Rise of Profitability During World War II. **AU** Dumenil, Gerard; Glick, Mark; Levy, Dominique. **AA** Dumenil: University of Paris. Glick: University of Utah. Levy: CEPREMAP. **SR** CEPREMAP Discussion Paper: 8913; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 24. **PR** 20 ff. **JE** 522, 511, 131, 133. **KW** Profit Rate. Productivity. Capital.

AB This study analyzes the exceptional increase in the profit rate which occurred during World War II. The profit rate, as defined herein, increased from 28.8 (1922-1929) to 35.9 percent (1946- 1955). This recovery interrupted an otherwise declining trend: from 40.2 (1869-1873) to 24.4 percent (1976-1985). This rise benefitted the state by providing a base for taxation, leaving corporations with after-tax returns even lower than those of the 1920s. It is demonstrated that this transformation was associated with a sudden increase in the productivity of one component of fixed capital: structures, as opposed to equipment. During the depression (from 1930 to 1940), total fixed capital was diminished by 18.1 percent in real terms. During the war years net investment was concentrated in equipment, while the net stock of structures stagnated.

PD May 1989. **TI** The Rationality of Adjustment Behavior in a Model of Monopolistic Competition. **AU** Dumenil, Gerard; Levy, Dominique. **AA** Dumenil: University of Paris. Levy: CEPREMAP. **SR** CEPREMAP Discussion Paper: 8916; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 16. **PR** 20 ff. **JE** 521, 522, 511, 022. **KW** Monopolistic Competition. Inventories. Disequilibrium.

AB The modeling of behavior in term of adjustment, i.e., the reaction to disequilibria observed in the past, as opposed to the maximizing of an objective function on the basis of the expectation of future magnitudes, has been criticized as ad hoc. In this study, we show that the optimal behavior of firms, with rational expectations can be expressed in terms of adjustment to past disequilibrium between supply and demand (i.e., to the amount of involuntary inventories). The perspective is that of partial equilibrium. Two different frameworks are successively adopted: 1) A monopoly facing a demand function subject to random shocks, and 2) Monopolistic competition without uncertainty.

PD June 1989. **TI** Micro Adjustment Behavior and Macro Stability. **AU** Dumenil, Gerard; Levy, Dominique. **AA** Dumenil: University of Paris. Levy: CEPREMAP. **SR** CEPREMAP Discussion Paper: 8915; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 32. **PR** 20 ff. **JE** 051, 133, 023. **KW** Long-Run Equilibrium.

Disequilibrium. Capitalism. Business Cycle.
AB In this paper we construct a framework for the analysis of the stability of capitalist economies. To this end, the behavior of economic agents is described in term of adjustment: agents make decisions within disequilibrium and react to the observation of disequilibrium (what we call disequilibrium microeconomics). The conception of equilibrium is that of a long-term equilibrium with prices of production (normal equilibrium). We distinguish the stability of the system with respect to the relative values of the variables among industries (proportions) and the stability of the general level of activity (dimension). Capitalism appears very stable with respect to proportions and unstable with respect to dimension.

PD June 1989. **TI** The Classical Legacy and Beyond. **AU** Dumenil, Gerard; Levy, Dominique. **AA** Dumenil: University of Paris. Levy: CEPREMAP. **SR** CEPREMAP Discussion Paper: 8919; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 42. **PR** 20 ff. **JE** 051, 042, 031, 133. **KW** Dynamic Model. Competition. Business Cycle. Classical Theory. Capitalism. Disequilibrium Theory.
AB This study is a plea for a reassessment and development of the classical legacy (Smith, Ricardo, and Marx), stressing the importance of the treatment of disequilibrium. A framework of analysis is built for the study of the stability of capitalist economies which is illustrated by the example of the U.S. economy following the Civil War. The first part briefly recalls the main aspects of the classical analysis of competition and equilibrium. The second part presents the model (in particular of the modeling of behaviors within disequilibrium: "disequilibrium microeconomics"). The third part defines classical equilibrium and discusses its stability.

Durlauf, Steven D.

PD July 1989. **TI** Spectral Based Testing of the Martingale Hypothesis. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 163; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 35. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 211. **KW** Random Walk. Time Series. Martingale. Asymptotic Theory.
AB This paper proposes a method of testing whether a time series is a martingale. The procedure computes a distribution for the shape of the spectral density of the first differences. Under the null hypothesis, this shape should be a rectangle. The test determines whether the deviation of the sample spectral density from a rectangle, when treated as an element of a function space, is too erratic to be attributable to sampling error. The test is consistent against all moving average alternatives. The testing procedure possesses the additional advantage that it eliminates discretion in choosing a particular alternative hypothesis by the researcher and therefore guards against data mining. Further, the asymptotic theory proposed is robust to some forms of heteroskedasticity. Application of the test to stock prices finds mixed evidence concerning the random walk theory.

Dutta, J.

PD January 1987. **TI** Asset Markets and Equilibrium Processes. **AU** Dutta, J.; Polemarchakis, H. M. **AA** Dutta: Barnard College. Polemarchakis: Columbia University and Churchill College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 109; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 36. **PR** $4.00, checks payable to University of Cambridge. **JE** 313, 311. **KW** Asset Market. Monetary Economy. Competitive Allocation.
AB The failure of the asset market to be complete causes serial dependence in output and prices, which is suboptimal. We consider an economy with stationary, white noise shocks. When the asset market is complete, an optimal, competitive allocation inherits this stationarity. When the asset market is only sequentially complete, prices and output necessarily display serial dependence at equilibrium. The further incompleteness of a monetary economy explains comovements in real and nominal variables.

PD September 1989. **TI** Asset Pricing and Observability. **AU** Dutta, J.; Polemarchakis, H. M. **AA** Columbia University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-259; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 32. **PR** no charge. **JE** 021. **KW** Asset Prices. Exchange Economy. Capital Asset Pricing Model. Portfolio.
AB We consider observable restrictions on asset prices in an exchange economy with general preferences and endowments and an asset structure that may be incomplete. (1) Asset prices satisfy the martingale property with respect to a class of probability measures; however, generically, not with respect to the empirical measure. (2) Attainable assets are priced at their expected payoffs with a correction for covariance with a benchmark return. This benchmark is a complete description of attitudes towards risk in the asset market. There is a unique portfolio of marketed assets that yields the benchmark return.

Economides, Nicoles

PD January 1989. **TI** Differentiated Public Goods: Privatization and Optimality. **AU** Economides, Nicoles; Rose-Ackerman, Susan. **AA** Economides: Columbia University and Stanford University. Rose-Ackerman: Yale University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 158; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 27. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 612, 614, 611, 022. **KW** Public Goods. Monopolistic Competition. Public Enterprises. Competition. Industrial Organization.
AB Building on previous work on monopolistic competition in variety space, this paper demonstrates that privatization of public good production will not produce optimal results even when citizens have widely varying tastes for public services. While the use of multiple providers may indeed be optimal, equilibrium in an unregulated competitive market may be inferior to the public production of a single variety. The full benefits of having multiple providers can only be obtained by regulating both entry and production levels. A free market financed by tax-deductible contributions will have too many producers supplying too much output.

PD March 1989. **TI** Variable Compatibility Without Network Externalities. **AA** Columbia University, Stanford University and University of California at Berkeley. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 157; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 29. **PR** NC for

members of non-profit institutions, $3.00 otherwise. **JE** 611, 022, 612, 621. **KW** Standardization. Components. Prices. Technology.

AB I analyze a model where systems are composed of two components. Hybrid systems, composed of components produced by different firms, require an adapter or interface to function. Through design manipulations, component-producing firms control the price of the adapter which is produced by a competitive sector. I show that, for symmetric demand, when firms choose noncooperatively design specifications and prices, they produce fully compatible components, both when the choices are simultaneous and when they are taken in sequence, with the specification choice preceding the price choice. However, if the demand for hybrid systems is very small, at equilibrium firms choose to maximize the degree of incompatibility of their components. If the demand for one single-producer system is very large, then only the small-demand firm wants compatibility, and a regime of limited incompatibility results.

Edwards, Sebastian

PD June 1988. **TI** Temporary Terms of Trade Disturbances, the Real Exchange Rate and the Current Account. **AA** University of California, Los Angeles. **SR** National Bureau of Economic Research Working Paper: 2629; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $2.00. **JE** 431, 422, 411. **KW** Current Account. Exchange Rates. Terms of Trade. Tariffs.

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

Eichengreen, Barry

PD August 1989. **TI** International Monetary Instability Between the Wars: Structurals Flaws or Misguided Policies?. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-118; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 69. **PR** $3.50. **JE** 432, 431. **KW** Exchange Rates. International Monetary System.

AB This paper reassesses the history of the international monetary system between the wars. It confirms the generality of several widely held interpretations of recent experience with floating exchange rates. There is a positive association between nominal exchange rate flexibility and nominal exchange rate variability. There is a positive association between nominal exchange rate variability and real exchange rate variability. But policies of intervention which reduce nominal exchange rate variability do not guarantee a proportionate reduction in nominal exchange rate risk or in real exchange rate variability and unpredictability. A credible commitment to a stable intervention rule is needed to deliver these benefits. The paper then goes on to consider four potential explanations for the collapse of the fixed rate regime that prevailed from 1926 through 1931.

PD August 1989. **TI** The Comparative Performance of Fixed and Flexible Exchange Rate Regimes: Interwar Evidence. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-119; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 56. **PR** $3.50. **JE** 431. **KW** Exchange Rates. Government Policy.

AB This paper reports evidence on the characteristics of fixed and flexible exchange rate regimes. It contrasts experience under three exchange rate regimes: the free float of the early 1920s, the fixed rates of 1927-31, and the managed float of the early 1930s. A number of differences across nominal exchange rate regimes emerge. (1) The variability of nominal exchange rates was positively associated with the freedom of the float. (2) The reduction in nominal exchange rate variability achieved with the move from free to managed floating was not accompanied by a commensurate fall in exchange rate uncertainty. (3) There was a strong association between nominal exchange rate predictability and real exchange rate predictability in both the free float of 1922-26 and the managed float of 1932-36.

PD August 1989. **TI** The Gold Standard Since Alec Ford. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-120; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 54. **PR** $3.50. **JE** 431, 041, 311. **KW** Gold Standard. Exchange Rates. Monetary Policy. Central Bank.

AB This paper surveys studies of the operation of the classical gold standard published subsequent to the appearance of Alec Ford's "The Gold Standard 1880-1914: Britain and Argentina in 1962." Contributions tend to fall under two headings: those which emphasize stock equilibrium in money markets (examples of the so called "monetary approach") and those which emphasize instead stock-flow interactions in bond markets. The paper then addresses the perennial question of how the gold standard worked. A central element of my explanation for the stability of the gold standard at the center is the credibility of the official commitment to gold. Knowing that policymakers would intervene in defense of the gold standard, markets responded in the same direction in anticipation of official action. Hence the need for actual intervention was minimized. Credibility derived from the fact that the commitment to the gold standard was international.

PD November 1989. **TI** The Capital Levy in Theory and Practice. **AA** University of California, Berkeley. **SR** Centre for Economic Policy Research Discussion Paper: 350; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 45. **PR** $4.00. **JE** 322, 323, 411. **KW** Capital Taxation. Capital Flight. Government Spending.

AB This paper shows how in theory, if the contingencies in response to which it is imposed are fully anticipated, independently verifiable and not under government control, then saving and investment should not fall following the imposition of a capital levy. Nor should the government find it more difficult to raise revenues subsequently, even if its non-recurrence cannot be guaranteed. In practice, however, serious

problems stand in the way of implementation. Property owners are sure to delay its adoption and engage in capital flight, reducing the prospective yield and allowing the special circumstances providing the justification for the levy to recede into the past.

Elliehausen, Gregory E.

TI The National Survey of Small Business Finances: Description and Preliminary Evaluation. **AU** Cox, Brenda G.; Elliehausen, Gregory E.; Wolken, John D.

Evans, Merran A.

PD October 1989. **TI** Robustness and Size of Tests of Autocorrelation and Heteroskedasticity to Non-Normality. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 10/89; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 24. **PR** no charge. **JE** 211. **KW** Autocorrelation. Heteroskedasticity. Robustness. Normality. Linear Regression Model.

AB A comprehensive empirical examination is made of the sensitivity of tests of disturbance covariance in the linear regression model to non-normal disturbance behavior. Tests of autocorrelation appear to be quite robust, except for extreme non-normality, but tests for heteroskedasticity are highly *susceptible to kurtosis.*

Evans, Owen

PD December 1989. **TI** National Savings and Targets for the Federal Budget Balance in the United States. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/103; International Monetary Fund, Washington, DC 20431. **PG** 34. **PR** not available. **JE** 224, 322, 321. **KW** Private Savings. Government Expenditures. Savings.

AB The U.S. national savings rate has declined in the 1980s, with both public and private components falling. This paper discusses that decline and whether a policy response is needed. The drop in the private savings rate appears to reflect factors not easily reversible by policy and increases in public saving may thus provide the most effective means of bolstering national savings. Illustrative calculations based on two alternative frameworks indicate that a net national saving rate substantially above its current level could be a desirable objective and that a large federal budget surplus could be needed to that end.

TI National and Personal Saving in the United States: Measurement and Analysis of Recent Trends. **AU** Bovenberg, A. Lans; Evans, Owen.

PD December 1989. **TI** The Recent Behavior of Business Fixed Investment in the United States and the Role of Computers. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/97; International Monetary Fund, Washington, DC 20431. **PG** 23. **PR** not available. **JE** 522, 621. **KW** Computers. Business Investment. Technology. Prices.

AB In the 1980s U.S. real investment in high technology equipment has grown rapidly while other components of business fixed investment have been weak. The surge in real high technology investment has been accompanied by a very sharp decline in its relative price, leading to difficult index number problems. When a previously estimated model of business fixed investment was extended to cover the period through 1988, the equation for nonresidential structures performed much as before while that for producers' durable equipment substantially underpredicted recent actual outcomes. Further disaggregation revealed that the underprediction related to the computing component.

Evans, Robert

PD October 1988. **TI** Sequential Bargaining with Correlated Values. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 131; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 17. **PR** $4.00, checks payable to University of Cambridge. **JE** 026. **KW** Bargaining Theory. Game Theory. Bargaining Game.

AB The paper analyzes an infinite horizon sequential bargaining game (with one-sided offers) between a buyer and a seller when the buyer's valuation depends on the seller's; the seller knows the value of the object and the buyer does not. The influence of relative discount factors on the solution is studied. It is shown for example, that an impasse may result if the buyer (offeror) is too impatient relative to the seller, the buyer makes a single take-it-or-leave-it offer.

Faigle, Ulrich

TI A Note on the Communication Complexity of Totally Unimodular Matrices. **AU** Kern, W.; Faigle, Ulrich.

PD December 1988. **TI** On the Performance of On-Line Algorithms for Partition Problems. **AU** Faigle, Ulrich; Kern, W.; Turan, G. **AA** Faigle: University of Enschede. Kern: University of Cologne. Turan: University of Chicago. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89.66; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 25. **PR** no charge. **JE** 213. **KW** Greedy Algorithm. On-Line Algorithm. Partition Problems. Combinatorial Optimization.

AB We consider the performance of the greedy algorithm and of on-line algorithms for partition problems in combinatorial optimization. After surveying known results we give bounds for matroid and graph partitioning, and discuss the power of non-adaptive adversaries for proving lower bounds.

PD December 1988. **TI** Note on the Convergence of Simulated Annealing Algorithms. **AU** Faigle, Ulrich; Kern, W. **AA** Faigle: University of Enschede. Kern: University of Cologne. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89.67; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** no charge. **JE** 213. **KW** Markov Process. Combinatorial Optimization. Stationary Distribution.

AB Generalizing the results of (Fai 1988), we give a short inductive proof for the fact that the stationary distributions of a simulated annealing algorithm converge to a distribution, where non-optimal elements are generated with probability 0, provided that the "weak reversability condition" of (Haj 1988) holds.

PD June 1989. **TI** Orders and Graphs. **AU** Faigle, Ulrich; Schrader, Rainer. **AA** Faigle: University of Bonn. Schrader: University of Twente. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89578-OR;

Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** no charge. **JE** 213. **KW** Order-theoretic Techniques. Directed Graphs. Antimatroids.

AB Orders and graphs may be viewed as two faces of the same coin. Often however, order-theoretic aspects of graph-theoretic problems come up in a more direct way. Similarly, many order-theoretic problems allow a more general approach within an appropriate graph-theoretic formulation. This survey addresses such relationships between graph-theoretic and order-theoretic problems. It is not intended as an exhaustive and comprehensive treatment of the subject. Generally, our approach is more order-theoretic. It concentrates on recent developments and reflects to large extent also the research interests of the authors. The survey consists of three sections. The first section emphasizes graph-theoretic techniques for order-theoretic problems while in the second section order-theoretic techniques are in the foreground. The third section finally outlines some generalizations in terms of basis graphs of antimatroids.

Fair, Ray C.

PD September 1989. **TI** Inflationary Expectations and Price Setting Behavior. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 923; Yale University, Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 21. **PR** no charge. **JE** 134, 227, 133. **KW** Inflation. Expectations. Price Equations. Price Level.

AB This paper tests for the existence of expectational effects in very disaggregate price equations. Price equations are estimated using monthly data for each of 40 products. The dynamic specification of the equations is also tested, including whether the equations should be specified in level form or in change form. Two expectational hypotheses are used, one in which expectations of the aggregate price level are a function of the past values of the price level and one in which expectations are rational. Under the first hypothesis the lag length is estimated along with the other parameters, and under the second hypothesis the lead length is estimated along with the other parameters.

TI Estimation of Polynomial Distributed Lags and Leads with End Point Constraints. **AU** Andrews, Donald W. K.; Fair, Ray C.

Fane, George

PD August 1989. **TI** The Global Efficiency of Radial Tax Reductions. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 184; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 5. **PR** no charge. **JE** 323, 411. **KW** Subsidies. Taxes. Open Economy. Tax Reform.

AB The paper investigates the circumstances in which a piecemeal policy reform which radially reduces all tax and subsidy distortions in a small, competitive, open economy necessarily raises efficiency. Existing results are extended by analyzing finite changes rather than infinitessimal changes, and by explicitly allowing for the possibility that the policy change may cause switches of particular goods among the categories "imported", "exported" and "non-traded".

Farmer, R. E. A.

PD February 1988. **TI** R.I.N.C.E. Preferences. **AA** University of California, Los Angeles and Cambridge University. **SR** University of Cambridge Economic Theory Discussion Paper: 121; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 26. **PR** $4.00, checks payable to University of Cambridge. **JE** 026, 022. **KW** Dynamic Model. Choice Problem. Consumer Preferences. Risk.

AB This paper presents a class of preferences that yield closed form solutions to dynamic stochastic choice problems. These preferences are based on a set of axioms that were proposed by Kreps and Porteus. The Kreps-Porteus axioms allow one to separate an agents attitudes to risk from his or her intertemporal elasticity of substitution. The preferences that I propose have the properties of Risk Neutrality and Constant Elasticity of substitution hence the acronym RINCE.

Feenberg, Daniel R.

PD June 1988. **TI** Testing the Rationality of State Revenue Forecasts. **AU** Feenberg, Daniel R.; Gentry, William M.; Gilroy, David; Rosen, Harvey S. **AA** Feenberg: National Bureau of Economic Research. Gentry, Gilroy and Rosen: Princeton University. **SR** National Bureau of Economic Research Working Paper: 2628; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** $2.00. **JE** 324, 132. **KW** State Government. Forecasting. State Revenue. Tax Revenue.

AB In recent months, the governors of several states have suffered major political embarrassments because actual revenues fell substantially short of the predictions in their respective budgets. Such episodes focus attention on the question of whether states do a "good" job of forecasting revenues. In modern economics, forecasts are evaluated on the basis of whether or not they are "rational" -- do the forecasts optimally incorporate all information that is available at the time they are made? This paper develops a method for testing the rationality of state revenue forecasts, and applies it to the analysis of data from New Jersey, Massachusetts, and Maryland. One of our main findings is that in all three states, the forecasts of own revenues are systematically biased downward.

Feenstra Robert C.

PD December 1989. **TI** Designing Policies to Open Trade. **AU** Feenstra Robert C.; Lewis, Tracy R.; McMillan, John. **AA** Feenstra and Lewis: University of California at Davis. McMillan: University of California at San Diego. **SR** University of California at Davis Economics Department Working Paper: 349; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 26. **PR** no charge. **JE** 422, 612, 611. **KW** Auction. Import Quotas. Tariffs. Protectionism.

AB In this paper we consider recent proposals to auction U.S. import quotas, using the funds so obtained to encourage relocation out of the protected industries. We argue that the information available to the government, or lack thereof, is a critical factor in understanding these policies. In a world of full information, it makes little sense to use auction quotas rather than tariffs. Similarly, it is unclear why an elaborate program of temporary protection is needed, rather than immediately

opening trade and compensating people with an income transfer. When the government has limited information, however, these policies become quite sensible and may even be optimal.

Feenstra, Robert C.

PD July 1989. **TI** Distance, Demand and Oligopoly Pricing. **AU** Feenstra, Robert C.; Levinsohn, James A. **AA** Feenstra: University of California, Davis. Levinsohn: University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-19; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 33. **PR** no charge. **JE** 022, 611, 132. **KW** Oligopoly. Product Demand. Demand System. Differentiated Products.

AB We demostrate how to estimate a model of product demand and oligopoly pricing when products are multi-dimensionally differentiated. We provide an empirical counterpart to recent theoretical work on product differentiation. Using specifications informed by economic theory, we simultaneously estimate a demand system and price-cost margins for products differentiated in many dimensions.

Fershtman, Chaim

PD June 1989. **TI** Noisy Search and the Diamond Paradox. **AU** Fershtman, Chaim; Fishman, Arthur. **AA** Tel Aviv University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 844; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 18. **PR** no charge. **JE** 022, 611. **KW** Search Theory. Bertrand Equilibrium. Competition.

AB It is a paradoxical feature of Diamond's (1971) search model that the market equilibrium does not approach the Betrand outcome in the limit as the search cost becomes arbitrarily small. We show that the Diamond equilibrium is not the limit of the equilibrium with noisy search as the amount of noise goes to zero. Specifically, we demonstrate that if the sequential search technology is replaced by a noisy search technology, the market equilibrium converges to the competitive one when the search cost goes to zero even for an arbitrarily small amount of noise.

PD July 1989. **TI** Search and Price Dispersion in an Inflationary Economy. **AU** Fershtman, Chaim; Fishman, Arthur. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 31-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 38. **PR** no charge. **JE** 134, 023. **KW** Search Theory. Overlapping Generations Model. Inflation. Price Distribution.

AB We present a simple overlapping generations search model of an inflationary economy in which money is the only store of value and identify an inflation based endogenously determined search cost. The latter reflects the fact that resources required for future consumption are random and are thus exposed to excessive erosion. We analyze the effect of the constant inflation rate on the equilibrium real price distribution, output and welfare. An increase in the rate of inflation increases production efficiency and may increase welfare.

PD July 1989. **TI** Cycles and Non-Stationary Equilibrium Search. **AU** Fershtman, Chaim; Fishman, Arthur. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Papers: 30-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 22. **PR** no charge. **JE** 824, 821, 023. **KW** Search Theory. Labor Market. Employment.

AB We provide an example of a cyclical equilibrium in the labor market which is the result of optimal dynamic sequential search on the part of workers. The cyclical properties of the equilibrium persist despite the absence of shocks or uncertainty in the model.

PD July 1989. **TI** Search and Price Dispersion in an Inflationary Economy. **AU** Fershtman, Chaim; Fishman, Arthur. **AA** Tel Aviv University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 843; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 38. **PR** no charge. **JE** 022, 134. **KW** Search Theory. Inflation. Prices.

AB We present a simple overlapping generation search model of an inflationary economy in which money is the only store of value and identify an inflation based endogenously determined search cost. The latter reflects the fact that resources required for future consumption are random and are thus exposed to excessive erosion. We analyze the effect of the constant inflation rate on the equilibrium real price distribution, output and welfare. An increase in the rate of inflation increases production efficiency and may increase welfare.

PD July 1989. **TI** Strikes and Deadline Effects in Bargaining with Endogenous Commitment. **AU** Fershtman, Chaim; Seidmann, Daniel. **AA** Seidmann: Trinity College. Fershtman: Tel Aviv University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 845; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 29. **PR** no charge. **JE** 026, 832. **KW** Bargaining. Strikes. Negotiations.

AB Bilateral (sequential) negotiators delay agreements until a deadline if a player that rejects an offer is subsequently committed not to accept any poorer proposal and if the common discount factor is close enough to one. If the discount factor is lower, then players agree at the outset. The empirically appealing U-shaped distribution of bargaining duration can therefore be explained naturally without an appeal to incomplete information.

Figlewski, Stephen

PD July 1989. **TI** What does an Option Pricing Model Tell Us About Option Prices?. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 525; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 11. **PR** no charge. **JE** 313. **KW** Options. Prices. Capital Markets.

AB The Black-Scholes option pricing model is one of the few examples in finance of an academic theory that is widely applied in the "real world." However, the ways academics and practitioners think about option pricing are very different. This paper examines those differences and offers some reflections on option models in theory and in practice.

PD October 1989. **TI** Tailing the Hedge: Why and How. **AU** Figlewski, Stephen; Landskroner, Yoram; Silber, William

L. **AA** Figlewski and Silber: New York University. Landskroner: Hebrew University. **SR** New York University Salomon Brothers Center Working Paper: 536; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 14. **PR** no charge. **JE** 313, 311. **KW** Futures. Hedging. Financial Theory. Capital Markets.

AB Futures markets have been cited as providing risk reduction facilities for the agricultural and financial communities. It is not surprising, therefore, that both academics and practitioners have devoted considerable time and effort to devising the appropriate hedging rules for reducing risk. On a somewhat general level, academics have focused on deriving optimal hedge ratios based on the risk/return characteristics of cash and futures markets. Practitioners, on the other hand, have concentrated on the details of basis risk and financing costs that can complicate basic hedging principles.

Fishelson, Gideon

PD July 1989. **TI** Allocation of a Product Between Two Markets, Under Uncertainty. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 29-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 25. **PR** no charge. **JE** 026, 411. **KW** Trade Policy. International Trade. Uncertainty. Monopoly. Cournot Equilibrium.

AB In this study we provide an additional reason for international trade and in the same good. The reason is uncertainty which is perceived differently by firms in different countries. We show the different equilibria for a monopoly and a duopoly given different trade policies they pursue under uncertainty.

PD October 1989. **TI** Solow Thirty Years Later. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 36-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 19. **PR** no charge. **JE** 226, 621, 132. **KW** Productivity. Growth. Capital Stock. Unemployment. Labor Share.

AB In this paper Solow's study (1957) is repeated for a period of time that extends it for another 34 years, 1948-1982. We used a unique set of data, those of Denison (1985), finding that for this period on the average the pure technological progress was approximately 1.9 percent per annum and that this measure is very robust with regard to the definition of capital. We also found that the economic environment, optimism, reflects positively upon productivity. The opposite goes for pessimism, unemployment. Oil prices had a negative, low significant effect upon growth as did pollution abatement and OSHA.

Fishman, Arthur

TI Noisy Search and the Diamond Paradox. **AU** Fershtman, Chaim; Fishman, Arthur.

TI Search and Price Dispersion in an Inflationary Economy. **AU** Fershtman, Chaim; Fishman, Arthur.

TI Cycles and Non-Stationary Equilibrium Search. **AU** Fershtman, Chaim; Fishman, Arthur.

TI Search and Price Dispersion in an Inflationary Economy. **AU** Fershtman, Chaim; Fishman, Arthur.

Flanders, M. June

PD November 1989. **TI** International Monetary Economics 1870-1960. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 38-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 82. **PR** no charge. **JE** 441, 411, 031, 023. **KW** Capital Flows. Capital Mobility. International Macroeconomics. Monetary Theory.

AB The development of international monetary theory from late-nineteenth to mid-twentieth century was not linear, but leap-frogged, often in response to events. Stemming from a protomodel, characterized closely but not precisely by the Hume price-specie flow model, there developed an F (formal) - stream of models with endogenous money supply in which existence and stability of equilibrium were major issues. Almost in parallel there developed a group of P (policy)-oriented approaches surrounding the famous "rules of the game" which explored the role of monetary authorities in a disequilibrium world. The streams were distinguished also by their different treatment of international capital flows. The two streams began to converge in the early post-World War II period with the Mundell-Fleming type of model, with capital mobility appearing as an integral part of equilibrium models.

Fleischner, Herbert

TI An Eulerian Trail Traversing Specified Edges in Given Order. **AU** Mao-cheng, Cai; Fleischner, Herbert.

Flood, Robert

PD June 1989. **TI** Risk Neutrality and the Two-Tier Foreign Exchange Market: Evidence from Belgium. **AU** Flood, Robert; Marion, Nancy. **AA** Flood: International Monetary Fund. Marion: Dartmouth College. **SR** National Bureau of Economic Research Working Paper: 3015; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $2.00. **JE** 431, 411. **KW** Exchange Market. Domestic Policy. Exchange Rates.

AB Most of the literature on two-tier exchange markets is built around models in which domestic policy can exert a powerful influence on the spread between the current account exchange rate and the capital account exchange rate. We show that if optimizing agents are risk neutral, domestic policy has no significant influence on the spread. Our work with Belgian data suggests that a risk neutral specification for Belgian residents acting in the two-tier market is hard to reject, and we also find evidence that domestic variables do not affect the Belgian spread.

Frank, Andras

PD July 1989. **TI** On Disjoint Homotopic Paths in the Plane. **AA** University of Budapest. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89586-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTCHLAND. **PG** 10. **PR** no charge. **JE** 213. **KW** Homotopic Paths. Planar Graph.

AB A simple algorithmic proof is given for a directed version of a theorem of N. Robertson and P. Seymour on the existence of disjoint homotopic paths.

Frank, Jeff

PD July 1989. **TI** Insiders, Outsiders, and Seniority Employment Rules. **AU** Frank, Jeff; Malcomson, James M. **AA** Frank: University of Essex. Malcomson: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8908; Department of Economics, University of Southampton, Southampton, S09 5NH, ENGLAND. **PG** 23. **PR** no charge. **JE** 832, 833, 824, 821. **KW** Collective Bargaining. Employment. Bargaining.

AB There are two traditions in the insider-outsider literature. One assumes a seniority employment rule, the other not. We unify these by analyzing what the firm and the insiders gain by agreeing to such a rule. Generally they gain if insider bargaining power is relatively weak. Moreover, when a seniority employment rule results in hiring of outsiders, it is efficient in achieving the same outcome as bargaining directly over employment. This might explain why bargaining over employment is relatively uncommon and, where it occurs, is typically in industries with declining employment. Voluntary severance may be an alternative efficient response to this.

Frankel, Jeffrey A.

PD December 1989. **TI** Quantifying International Capital Mobility in the 1890s. **AA** University of California, Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-126; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 60. **PR** $3.50. **JE** 431, 441, 423, 411. **KW** Financial Integration. Exchange Rates. Capital Mobility. National Saving. Capital Controls.

AB The Feldstein-Horioka finding, that national saving and investment have been highly correlated in the past, has not been primarily due to econometric problems such as endogenous fiscal policy; it has held up equally well when instrumental variables are used. But the inflow of capital to the United States has been so large in the 1980s that an updating of the sample period now produces a coefficient on national saving that is lower than in past studies. This decline in the degree of crowding out of investment can be attributed to the increased degree of financial market integration in the 1980s. A new data set of forward exchange rates for 25 countries shows that a continuing worldwide trend of integration of financial markets in the 1980s had all but eliminated short-term interest differentials for major industrialized countries by 1988.

Friedman, James W.

PD September 1989. **TI** To Trade or Not to Trade; That is the Question. **AU** Friedman, James W.; Hammerstein, Peter. **AA** Friedman: University of North Carolina, Chapel Hill. Hammerstein: May-Planck-Institute fur Verhaltens Physiologie, Federal Republic of Germany. **SR** University of North Carolina Working Paper Series: 89-8; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 36. **PR** none. **JE** 026. **KW** Noncooperative Equilibrium. Evolutionary Biology.

AB The black hamlet is a simultaneous hermaphrodite fish that does not fertilize its own eggs and whose reproductive success is strongly related to the number of eggs of other fish that it fertilizes. The hamlet engages in egg trading, a mating process in which one fish lets another fertilize its eggs in exchange for allowing it to fertilize the eggs of the other fish. The purpose of this paper is to model the hamlets' mating as a game in which their chosen behavior is an equilibrium. We investigate two issues in particular: (1) Is it in the interest of an hermaphrodite fish to behave in a way that sustains the behavior that they follow? (2) If it were possible for hamlets that were specialized as males to deceive hermaphrodites into egg trading, would a population be sustainable in which such males were a significant fraction of the total?.

Fritz-Krockow, Bernhard

PD December 1989. **TI** Subsistence Linked Economy: The Case of the Solomon Islands. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/104; International Monetary Fund, Washington, DC 20431. **PG** 13. **PR** not available. **JE** 711, 121, 311. **KW** Developing Countries. Subsistence Economy. Agriculture.

AB How are money demand, income, and the price level affected when a significant portion of the economically active population reverts to and withdraws from subsistence economic activity? This paper tries to find a quantitative answer to the question by highlighting the specific link between the monetized and the subsistence economy that exists in the Solomon Islands: the producer price of copra, the main cash crop. The paper includes this variable explicitly in the money demand function of an aggregated macroeconomic simultaneous equation model and finds a significant impact throughout the economy.

Fry, Timothy R. L.

PD October 1989. **TI** Univariate and Multivariate Burr Distributions: A Survey. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 9/89; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 42. **PR** no charge. **JE** 211. **KW** Burr Distributions. Multivariate Distributions.

AB The genesis of the work on this family of distributions was the paper by Burr 1942, in which he aimed to generate distributions that could take on a wide variety of shapes and yet remain tractable to work with. Subsequent work with the family has been sporadic and has concentrated on the univariate case. It is also spread over a wide range of disciplines. Here we survey the literature concerning the Burr Family of distributions and summarize and extend the results concerning two members of the family. The Burr types II and XII. We also develop some new univariate and multivariate Burr type II distributions, which being a generalization of the Logistic, may prove useful in future applications.

Fuhrer, Jeffrey C.

PD November 1989. **TI** The Stability of Wicksell's Monetary Policy Rule. **AU** Fuhrer, Jeffrey C.; Moore, George R. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 94; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash., DC 20551. **PG** 10. **PR** no charge. **JE** 311, 133, 134, 132. **KW** Monetary Policy. Inflation. Interest Rates. Stabilization Policy.

AB Knut Wicksell's analysis of monetary policy, as described in "The Influence of the Rate of Interest on Prices", has been influential among policymakers, and it dominates

monetary policy discussions in the financial press today. His description is simple: raise interest rates when inflation is getting high, and lower interest rates when inflation is getting low. This paper investigates the conditions under which Wicksell's monetary policy rule yields a stable economy.

Gabszewicz, Jean J.

PD March 1989. **TI** Spatial Price Competition with Uninformed Buyers. **AU** Gabszewicz, Jean J.; Garella, Paolo; Nollet, Charles. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8906; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 17. **PR** no charge. **JE** 611, 022. **KW** Location Theory. Oligopoly. Search Theory.
AB In the present paper we study price rivalry among firms selling their product at different locations in space, to buyers who are imperfectly informed about prevailing prices. Spatial dispersion of sellers naturally supports the hypothesis that buyers have imperfect knowledge of prices: whence the idea of combining the spatial model of oligopolistic interaction with a search behavior of buyers.

PD April 1989. **TI** Capacity Adjustments in a Competitive Industry. **AU** Gabszewicz, Jean J.; Michel, Philippe. **AA** Gabszewicz: Universite Catholique de Louvain. Michel: Universite de Paris I. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8907; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 15. **PR** no charge. **JE** 641, 611, 511, 022. **KW** Economic Capacity. Production. Perfect Competition. Firm Theory.
AB In this paper we study an adjustment process of the productive capacities for firms operating in a competitive industry. Our basic assumption is that firms adjust their capacity at each period so as to reduce the total cost of current production. We examine the microeconomic implications of this investment behavior on the capacity adjustment of firms, when it is combined with a simultaneous adjustment of output market price at equilibrium. We perform this analysis in the context of a competitive market, and show that this combined process generates a sequence of short run market equilibria which converges to the long run equilibrium in which capacities of firms are optimally adjusted to their production level.

Galli, Giampaolo

TI On the Difference Between Tax and Spending Policies in Models with Finite Horizons. **AU** Branson, William H.; Galli, Giampaolo.

Gambardella, Alfonso

TI Complementarity and External Linkages: The Strategies of the Large Firms in Biotechnology. **AU** Arora, Ashish; Gambardella, Alfonso.

Garbers, J.

PD August 1989. **TI** Placement in VLSI-layout: Combining Partitioning, Global Routing and Timing Analysis. **AU** Garbers, J.; Korte, B.; Promel, Hans Jurgen; Schwietzke, E.; Steger, A. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89597-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** no charge. **JE** 213. **KW** Global Routing. Timing Analysis. VLSI-layout. Algorithm.
AB In this paper we propose a hierarchical placement procedure incorporating more and more detailed routing and timing information at increasing levels of the hierarchy. This procedure is based on the well-known min-cut method. A global routing and a timing analysis are computed after every cut and are used to guide the subsequent cell partitioning.

Garella, Paolo

TI Spatial Price Competition with Uninformed Buyers. **AU** Gabszewicz, Jean J.; Garella, Paolo; Nollet, Charles.

Gatsios, Konstantine

PD December 1985. **TI** International Trade Under Increasing Returns Product Differentiation and Monopolistic Competition. **AA** Jesus College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 118; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 32. **PR** $4.00, checks payable to University of Cambridge. **JE** 421, 411, 123. **KW** International Trade. Trade Theory. Returns to Scale. Developing Countries.
AB The effects of increasing returns to scale and noncompetitive behavior on international trade have been discussed for many years. Economic theorists working in the classical tradition, such as Marshall (1879), Ohlin (1933) and Haberler (1936), were mainly interested in the effects of increasing returns on the welfare of the trading countries. Nonetheless, economies of scale as a cause of trade have received relatively small attention in formal trade theory. The main reason for this seems to be the difficulty of dealing with the implications of increasing returns for market structure, along with the problem of existence of equilibrium arising from the nonconvexities of production sets.

PD February 1987. **TI** Preferential Tariffs and the "Most Favoured Nation" Principle: A Note. **AA** Jesus College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 120; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 18. **PR** $4.00, payable to University of Cambridge. **JE** 422, 421, 411, 431. **KW** Tariffs. Trade Barriers. Tariff Policy. Imports. Customs Union.
AB The issue of preferential (or discriminatory) import tariffs has been traditionally analyzed in the context of customs union. Undoubtedly, the formation of customs unions involves preferential trade policies in the sense that the member states of such a union, despite trading freely among themselves, impose, at the same time, trade barriers towards the rest of the world. However, the G.A.T.T. agreements, and in particular the Most Favoured Nation (M.F.N.) principle which constitutes the keystone of these agreements, indicate that discriminatory tariff policies are much deeper rooted. The aim of this note is to show that preferential tariffs can indeed be the optimal outcome of noncooperative behavior by trading countries and, consequently, to argue that the existence of M.F.N. principle reflects the incentive of each country to otherwise unilaterally pursue discriminatory tariff policies.

PD July 1987. **TI** Customs Unions and the Core: A Reciprocal Dumping Model. **AA** Jesus College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 119; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 57. **PR** $4.00, checks payable to University of Cambridge. **JE** 422, 421, 411. **KW** Customs Union. Tariffs. Free Trade. Trade Agreements.
AB This paper attempts to develop a model which can provide an explanation of the formation of Customs Unions. The traditional approach to analyzing Customs Unions in, say, a three country model, is by comparing the welfare levels of the member states of a union with those of the optimal (noncooperative) tariff equilibrium. Evidently, this approach does not answer the following questions: (i) which of the three countries will form a union and why? and (ii) will the member states of a union be better off compared with a free trade situation?.

PD October 1989. **TI** Delegation Games in Customs Unions. **AU** Gatsios, Konstantine; Karp, Larry. **AA** Gatsios: Fitzwilliam College, Cambridge. Karp: University of California, Berkeley. **SR** Centre for Economic Policy Research Discussion Paper: 337; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 28. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 411, 421, 422. **KW** Customs Unions. Trade Policy.
AB We study a model in which a customs union trades with countries that behaved strategically. If the members of the customs union are similar but not identical, one country will want to delegate authority for making union policy to its partner. Even if side-payments within the union are permitted, union welfare may be higher if one country chooses union policy to maximize its own welfare, rather than having a supra-national agent choosing union policy to maximize joint welfare. The delegation decision depends on whether the policies used by union and non-union countries are strategic substitutes or complements and on which union member is more "aggressive".

PD October 1989. **TI** The Welfare Effects of Imperfect Harmonization of Trade and Industrial Policy. **AU** Gatsios, Konstantine; Karp, Larry. **AA** Gatsios: Fitzwilliam College, Cambridge. Karp: University of California, Berkeley. **SR** Centre for Economic Policy Research Discussion Paper: 335; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 42. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 422, 423, 616. **KW** Trade Policy. Customs Union. Oligopoly. Industrial Policy.
AB Partial cooperation in setting trade policy may be worse than no cooperation for countries who form a customs union. The paper investigates three situations where this is likely to occur. First, if the countries forming the union comprise too small a percentage of the non-competitive sector of the industry, their cooperation may be disadvantageous for essentially the same reason that a merger may be disadvantageous in oligopolistic industries. Second, even if the countries forming the union comprise the entire non-competitive sector of industry, cooperation on trade policy may be disadvantageous if industrial policy (e.g., investment subsidies) is chosen noncooperatively. Third, cooperation in choosing trade policies may encourage excessive investment by competitive importers and thus reduce the demand faced by the oligopolists.

Geanakoplos, John

PD September 1988. **TI** Lecture Notes in Incomplete Markets II. **AU** Geanakoplos, John; Magill, Michael; Shafer, Wayne. **AA** Geanakoplos: Yale University. Magill and Shafer: University of Southern California. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-205; Sonderforschungsbereich 303 an der Universitat Bonn Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 50. **PR** no charge. **JE** 022, 021. **KW** Incomplete Markets. Differential Topology. Transversality Theorem. Financial Markets.
AB No abstract.

TI Correlated Equilibrium with Generalized Information Structures. **AU** Brandenburger, Adam; Dekel, Eddie; Geanakoplos, John.

Gentry, William M.

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

TI Effects of the International Economy on Domestic Industries: Tests Using Financial Data. **AU** Bodnar, Gordon M.; Gentry, William M.

Gilboa, Itzhak

TI Numerical Representations of Imperfectly Ordered Preferences (A Unified Geometric Exposition). **AU** Beja, Auraham; Gilboa, Itzhak.

PD June 1989. **TI** The Value of Information an Axiomatic Approach. **AU** Gilboa, Itzhak; Lehrer, Ehud. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 835; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 28. **PR** no charge. **JE** 022, 026. **KW** Cooperative Games. Expected Utility. Information Function. Bayesian Theory.
AB The following question is addressed: Given a real-valued function on the partitions of a measure space, what are necessary and sufficient conditions in order that it be the value of information function for a Bayesian decision maker? A characterization is provided, and the analysis reveals a close relationship to cooperative game theory. The tools developed for characterization can also be used to derive somewhat surprising results regarding the properties of information functions.

PD August 1989. **TI** Infinite Histories and Steady Orbits in Repeated Games. **AU** Gilboa, Itzhak; Schmeidler, David. **AA** Gilboa: Northwestern University. Schmeidler: Ohio State University and Tel Aviv University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 846; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 40. **PR** no charge. **JE** 026, 213. **KW** Repeated Games. Nash Equilibrium. Memory.
AB We study a model of repeated games with the following features: (a) Infinite Histories: The game has been played since days of yore, or is so perceived by the players; (b) Turing

Machines with Memory: Since regular Turing machines coincide with bounded recall strategies (in the presence of infinite histories), we endow them with "external" memory; (c) Nonstrategic Players: The players ignore complicated strategic considerations and speculations about them. Instead, each player uses his/her machine to update some statistics regarding the others' behavior, and chooses a best response to observed behavior.

PD August 1989. **TI** A Note on the Consistency of Game Theory. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 847; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 14. **PR** no charge. **JE** 026. **KW** Common Knowledge. Rationality. Game Theory.

AB It has been claimed in the literature that classical game theory is inconsistent, since it (implicitly) assumes that all players are rational and that this is common knowledge among them, while these two assumptions seem to be contradictory. The purpose of this note is to suggest a framework which allows the formalization of these implicit axioms in a consistent way. The main idea is to distinguish between conceivable and possible states of the world, while both exist as formal objects in the theory. Thus we may require that the players would make rational choices only at possible states of the world, and that this fact be common knowledge at all (conceivable) states, where the impossible ones are present in the model for the sole purpose of formally presenting the players' reasoning.

PD September 1989. **TI** Quasi-Values on Subspaces. **AU** Gilboa, Itzhak; Monderer, Dov. **AA** Gilboa: Northwestern University. Monderer: The Technion. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 855; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 17. **PR** no charge. **JE** 022, 026, 213. **KW** Cooperative Games. Stochastic Choice. Equivalence Theorem.

AB Quasi-values are operators satisfying all axioms of the Shapley value with the possible exception of symmetry. We introduce the characterization and extendibility problems for quasi-values on linear subspaces of games, provide equivalence theorems for these problems, and show that a quasi-value on a subspace Q is extendable to the space of all games if it is extendable to Q + Sp{u} for every game u. Finally, we characterize restrictable subspaces and solve the characterization problem for those which are also monotone.

PD September 1989. **TI** A Game-Theoretic Approach to the Binary Stochastic Choice Problem. **AU** Gilboa, Itzhak; Monderer, Dov. **AA** Gilboa: Northwestern University. Monderer: The Technion. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 854; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 21. **PR** no charge. **JE** 022, 026, 213. **KW** Stochastic Choice. Choice Probabilities. Triangle Inequality. Equivalence Theorem.

AB We provide an equivalence theorem for the binary stochastic choice problem, which may be thought of as an implicit characterization of binary choice probabilities which are consistent with a probability over linear orderings. In some cases this implicit characterization is very useful in derivation of explicit necessary conditions. In particular, we present a new set of conditions which generalizes both Cohen-Falmagne's and Fishburn's conditions.

PD September 1989. **TI** The Complexity of Eliminating Dominated Strategies. **AU** Gilboa, Itzhak; Kalai, Ehud; Zemel, Eitan. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 853; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 26. **PR** no charge. **JE** 026. **KW** Dominated Strategies. Noncooperative Games. Game Theory.

AB This paper deals with the computational complexity of some yes/no problems associated with sequential elimination of strategies using three domination relations: strong domination (strict inequalities), weak domination (weak inequalities), and domination (the asymmetric part of weak domination). Classification of various problems as polynomial or NP-Complete seems to suggest that strong domination is a simple notion, whereas weak domination and domination are complicated ones.

Gilroy, David

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

Giovannini, Alberto

PD December 1989. **TI** Capital Controls and International Trade Finance. **AU** Giovannini, Alberto; Park, Jae Won. **AA** Columbia University. **SR** Centre for Economic Policy Research Discussion Paper: 343; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 25. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 441, 321, 313, 311. **KW** Capital Controls. Asset Markets. Financial Markets. Foreign Assets.

AB This paper studies the effects of prohibiting individuals from holding foreign assets, and of allowing firms to trade in foreign assets only up to what is needed to finance export and import activities. Although firms can perform arbitrage between domestic and foreign financial markets, this arbitrage does not eliminate the distortions in asset markets; instead, the distortions are transmitted to the domestic goods market. The paper discusses the effects of shocks in foreign financial markets and in domestic fiscal policy. We show that both the dynamics and steady states are crucially affected by capital controls.

Glick, Mark

TI The Rise of Profitability During World War II. **AU** Dumenil, Gerard; Glick, Mark; Levy, Dominique.

Glyn, Andrew

PD March 1988. **TI** The Rise and Fall of the Golden Age. **AU** Glyn, Andrew; Hughes Alan; Lipietz, Alain; Singh, Ajit. **AA** Glyn: Corpus Christi College. Hughes: Sidney Sussex College. Lipietz: CEPREMAP. Singh: Queens College. **SR** University of Cambridge Department of Applied Economics Working Paper: 884; Department of Applied Economics, University of Cambridge, Sidgwick Avenue,

Cambridge CB3 9DE, UNITED KINGDOM. **PG** 140. **PR** $4.00, checks payable to University of Cambridge. **JE** 226, 134, 122. **KW** Growth Rate. Stagnation. Government Policy. Developed Countries. Economic Development.

AB In contrast to earlier real growth rates of around 5%, OECD output growth in the medium term is currently forecast to grow at less then 3% p.a., with no significant changes in unemployment rates by the end of the decade. A key question facing policy makers in the advanced and developing economies is whether this represents a permanent or long term decline in the growth prospects in the industrial countries, for on their rates of progress hinge prospects for the world economy as a whole. We attempt in this paper to throw some light on this vitally important question by adopting a historical approach to the pattern of postwar development across the advanced capitalist countries (ACC's).

Godley, Wynne

TI Industrial Pricing in UK Manufacturing Industry Under Conditions of "Stagflation". **AU** Coutts, Kenneth; Godley, Wynne; Moreno-Brid, Juan Carlos.

PD February 1989. **TI** A Simple Real Stock Flow Model Illustrated with the Danish Economy. **AU** Godley, Wynne; Zezza, Gennaro. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 8901; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 45. **PR** $4.00, checks payable to University of Cambridge. **JE** 023, 122, 012. **KW** Macroeconomic Model. Macroeconomics. Econometric Model. Economic System.

AB This paper first deploys an ultra simple stock flow macroeconomic model, suitable for elementary teaching, and contrasts it with the standard IS-LM model. The basic theoretical model is then augmented with the relationships necessary for a representation of a real economic system describing income, expenditure, output, unemployment, wage and price inflation, the balance sheet variables (at current and constant market prices) together with property income flows. The model is next embodied in economic statistics, and the relationships estimated econometrically. Dynamic simulations are used to explore the consequences of various configurations of policy by comparing simulations of possible future paths for the economy.

Goldberg, Linda

PD July 1989. **TI** Debt Write-Downs and Debt-Equity Swaps in a Two Sector Model. **AU** Goldberg, Linda; Spiegel, Mark M. **AA** New York University. **SR** New York University Economic Research Reports: 89-19; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 23. **PR** none. **JE** 433, 432, 411. **KW** Debt Overhang. Default Penalty. Debt Buyback. Debt Forgiveness. Debt. Debtor Nations.

AB Investment disincentives due to a "debt overhang" have led to investigations of Pareto improvng "market-based debt-reduction schemes", under an assumption of creditor seizure in bad states. These models usually reach the conclusion that while pure debt forgiveness is in the interest of debtor nations, debt repurchase programs are not. This paper introduces a "safe sector" into the debtor nation which is unexposed to seizure during default states. The magnitude of the debt overhang is shown to affect both the composition of investment and the returns to factors in the debtor nation. Two important results which emerge are that debt forgiveness is not necessarily in the interest of all debtors, and the potential for Pareto improving debt-equity swaps is magnified.

Goldsbrough, David

PD December 1989. **TI** Monetary Policy in the Philippines During Periods of Financial Crisis and Changes in Exchange Rate Regime: Targets, Instruments and the Stability of Money Demand. **AU** Goldsbrough, David; Zaidi, Iqbal. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/98; International Monetary Fund, Washington, DC 20431. **PG** 26. **PR** not available. **JE** 223, 224, 311, 431. **KW** Monetary Policy. Exchange Rates. Demand Functions.

AB This paper examines some of the key issues in the conduct of Philippine monetary policy since 1984, including the various shocks to the economy and the monetary authorities' choice of intermediate policy targets and instruments used to achieve those targets. Against this background, estimates of demand functions for various categories of monetary aggregates and tests of stability are reported. A monetary model of exchange market pressure is also estimated. The results suggest that even after the adoption of a floating exchange rate system, the authorities allowed changes in foreign reserves to continue to absorb most of the exchange market pressure.

Good, David H.

TI The Structure of Production, Technical Change and Efficiency in a Multiproduct Industry: An Application to U.S. Airlines. **AU** Nadiri, M. Ishaq; Good, David H.; Sickles, Robin C.

Goodstein, Eban

TI Predicting Committee Behavior in Majority-Rule Voting Experiments. **AU** Salant, Stephen W.; Goodstein, Eban.

Gordon, Daniel V.

TI Price Response and Optimal Vessel Size in a Multi-Output Fishery. **AU** Bjorndal, Trond; Gordon, Daniel V.

Gorecki, Paul K.

TI Firm Turnover and Market Structure: Concentration Statistics as a Misleading Practice. **AU** Baldwin, John R.; Gorecki, Paul K.

Gottardi, Piero

PD December 1987. **TI** Asset Structures and the Irrelevance of Government Financial Policy. **AA** Trinity College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 122; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 36. **PR** $4.00, checks payable to University of Cambridge. **JE** 311, 313. **KW** Federal Reserve. Monetary Policy. Stock Market.

AB This paper investigates the relationship between the effects of open market operations and the kind of assets which are traded by the government. It is shown that the neutrality results of Chamley-Polemarchakis (1984) and Peled (1985)

cannot be generalized to an arbitrary asset structure. The asset structures for which the irrelevance of financial policy obtains are shown to be characterized by the presence of at least one infinitely lived, marketed asset, whether or not this asset enters into the open market operations. To establish the non-vacuousness of the analysis the existence and some properties of an equilibrium are also proved in a simple framework for the various combinations of assets which are considered.

TI The Relevance of Financial Policy. **AU** Detemple, J.; Gottardi, Piero; Polemarchakis, H. M.

Goudie, A. W.

PD March 1988. **TI** Export and Die: The Exchange Rate and Company Failure in a Macro-Micro Model. **AU** Goudie, A. W.; Meeks, G. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 885; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 39. **PR** $4.00, checks payable to University of Cambridge. **JE** 521, 522, 514. **KW** Bankruptcy. Business Failure. Business Finance. Macroeconomics. Business Investment.

AB Company failure has not traditionally received much attention from macroeconomists: the main academic work on the subject has been microeconomic, focusing on the concern of potential lenders with an individual firm's credit-worthiness. Neglect of the subject by macroeconomists has for long been justified, since in the fifties and sixties conditions in the U.K. were unlikely to lead to a failure rate with significant macroeconomic repercussions. However, conditions have been changing in such a way as to raise the likelihood of company failure.

Gourieroux, Christian

TI Une Note Sur L'Efficacite des Procedures Destimation en Deux Etapes. **AU** Trognon, A.; Gourieroux, Christian.

PD May 1989. **TI** Simulation Based Inference in Models with Heterogeneity. **AU** Gourieroux, Christian; Monfort, A. **AA** Gourieroux: ENSAE-CREST, CEPREMAP. Monfort: Unite de Recherche, INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8905; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 47. **PR** no charge. **JE** 211, 132. **KW** Simulation. Maximum Likelihood. Asymptotic Theory. Heterogeneity.

AB In this paper we discuss the usefulness, for models with heterogeneity, of simulation techniques in inference procedures, like maximum likelihood method, generalized moments method or pseudo maximum likelihood methods. These procedures are studied from the point of view of consistency, asymptotic normality, convergence rates and possible asymptotic bias. We carefully distinguish the case where the simulations are different for all the observations from the case where they are identical.

PD December 1989. **TI** Detecting a Long Run Relationship (with an Application to the PPP Hypothesis). **AU** Gourieroux, Christian; Peaucelle, Irina. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8902; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 46. **PR** 20 ff. **JE** 111, 226, 023. **KW** Purchasing Power Parity. Long Run Growth.

AB In this paper we extend the co-integration condition to the case of stationary times series. Some stationary series are codependent if there exists a linear combination for which the adjustments are faster than for all the components. We develop a descriptive analysis of the codependence condition and we propose a test procedure of this hypothesis. This approach is applied to the study of the relative Purchasing Power Parity between Germany and France.

Green, Edward J.

PD January 1989. **TI** A Revealed Preference Theory for Expected Utility. **AU** Green, Edward J.; Osband, Kent. **AA** Green: University of Pittsburgh. Osband: RAND Corporation. **SR** Rand Paper: P-7485; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 33. **PR** not available. **JE** 022. **KW** Expected Utility. Preferences. Lotteries.

AB Standard axiomatizations of expected utility theory envision an agent with fixed probability assessments who can be observed to choose actions from varying opportunity sets (for instance, pairs of lotteries). These axiomatizations also envision that the agent's preferences among these actions depend on the state of nature only through the state-dependent consequences of the actions, and that these consequences are clearly defined and observable. The authors suggest that this conception may be an unnecessarily restrictive basis for empirical testing, and instead study the pattern of choices from a fixed set of actions as probability assessments change. They show that maximization of the expectation of a general, state dependent utility function places nontrivial restrictions on such a choice pattern. These restrictions are completely characterized by a discrete version of an integrability condition.

Greenstein, Shane

PD November 1988. **TI** Product Inertia and the Incentive to Innovate. **AU** Greenstein, Shane; Ramey, Garey. **AA** Greenstein: Stanford University. Ramey: University of California, San Diego. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 149; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 31. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 022, 621, 611. **KW** Product Innovation. Market Structure. Technical Change. Innovation. Duopoly.

AB We consider incentives for product innovation when the old and new products compete for the same customer base, and customers have differentiated valuations of product improvements. We show that when a joint monopolist would produce positive quantities of both products, competitive and monopolistic structures in the old product market provide the same incentive to innovate. If the monopolist can be threatened with new entry, monopoly market structure provide strictly greater incentive when the old product would persist under duopoly. These results contrast with Arrow's (1962) findings that competitive market structure provides greater incentive for process innovations. Social welfare and duopolistic rivalry are also analyzed.

TI Compatibility Standards and Information Technology--Business Strategies, Market Development, and Public Policies. **AU** David, Paul A.; Greenstein, Shane.

TI Switching Costs and Bidding Parity in Government Procurement of Computer Systems. **AU** Cabral, Luis; Greenstein, Shane.

Gregoir, S.

TI La Place des Stocks dans les Fluctuations Conjoncturelles Cluelques Elements de Statistique Descriptive. **AU** Laroque, G.; Gregoir, S.

Griliches, Zvi

TI Heterogeneity in Panel Data: Are There Stable Production Functions?. **AU** Mairesse, Jacques; Griliches, Zvi.

PD June 1988. **TI** R&D, Patents, and Market Value Revisited: Is There a Second (Technological Opportunity) Factor?. **AU** Griliches, Zvi; Hall, Bronwyn H.; Pakes, Ariel. **AA** Griliches: Harvard University. Hall: National Bureau of Economic Research. Pakes: University of Wisconsin, Madison. **SR** National Bureau of Economic Research Working Paper: 2624; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** $2.00. **JE** 621, 631. **KW** Innovations. Manufacturing. Technology. Patents.
AB It is known that innovations in the market value of manufacturing firms and their R&D expenditures are related (Pakes (1985) and Mairesse and Siu (1984)). This could be due to shifts in the demand for the output of a particular firm, to shifts in the technological opportunities available to the firm, or to both. In this paper, we use innovations in patenting activity as an additional piece of information about technological shifts in order to attempt to identify the relative importance of these two types of shocks. We build a simple two factor model of innovations in sales, investment, R&D investment, patent applications, and the rate of return to holding a share of the firm, and estimate it using a time series-cross section of U.S. manufacturing firms (340 firms from 1973 to 1980).

Grossman, Gene M.

PD August 1989. **TI** Quality Ladders in the Theory of Growth. **AU** Grossman, Gene M.; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Tel Aviv University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 148; Woodrow Wilson School, Princeton University, Princeton, NJ 08544-1013. **PG** 47. **PR** no charge. **JE** 621, 226. **KW** Technological Progress. Product Innovation. Research and Development. Endogenous Growth. Product Quality.
AB We develop a model of repeated product improvements in a continuum of sectors. Each product follows a stochastic progression up a quality ladder. Progress is not uniform across sectors, so an equilibrium distribution of qualities evolves over time. But the rate of aggregate growth is constant. The growth rate responds to profit incentives in the R&D sector. We explore the welfare properties of our model. Then we relate our approach to an alternative one that views product innovation as a process of generating an ever expanding range of horizontally differentiated products. Finally, we apply the model to issues of resource accumulation and international trade.

PD August 1989. **TI** Promoting New Industrial Activities: A Survey of Recent Arguments and Evidence. **AA** Princeton University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 147; Woodrow Wilson School, Princeton University, Princeton, NJ 08544-1013. **PG** 71. **PR** no charge. **JE** 616, 612. **KW** Industrial Policy. Subsidies. Economies of Scale. Externalities. Government Policy.
AB Popular support is rising in Europe and North America for an industrial policy that would encourage entry of national firms into new industrial activities. Recent analysis has sought to identify the distinguishing features of modern industries and to evaluate the arguments for government policy in the light of these features. I review here a number of economically based arguments for an active industrial policy. The arguments rely on the alleged importance to modern industrial competition of economies of scale, of learning-by-doing, of externalities stemming from R&D, production experience, on-the-job training and demand linkages, and of imperfections in capital and product markets due to asymmetries of information. In each instance, I evaluate the logical merits and empirical relevance of the case for government action and attempt to identify an appropriate policy response where some response seems warranted.

PD November 1989. **TI** Quality Ladders and Product Cycles. **AU** Grossman, Gene M.; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 39-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 46. **PR** no charge. **JE** 621, 411, 111, 023. **KW** Innovation. Technology. Imitation. Growth Theory.
AB We develop a two country model of endogenous innovation and imitation in order to study the interactions between these two processes. Firms in the North race to bring out the next generation of a set of technology-intensive products. Each product potentially can be improved a countably infinite number of times, but quality improvements require the investment of resources and entail uncertain prospects of success. In the South, entrepreneurs invest resources in order to learn the production processes that have been developed in the North. All R&D investment decisions are made by forward looking, profit maximizing entrepreneurs. The steady-state equilibrium is characterized by constant aggregate rates of innovation and imitation. We study how these rates respond to changes in the sizes of the two regions and to policies in each region to promote learning.

Gual, Jordi

TI Competition in Spanish Banking. **AU** Caminal, Ramon; Gual, Jordi; Vives, Xavier.

Guesnerie, Roger

PD August 1989. **TI** Taxation as a Social Choice Problem: The Scope of the Laffer Argument. **AU** Guesnerie, Roger; Jerison, Michael. **AA** Guesnerie: Ecole des Hautes Etudes en Science Sociales and CNRS Paris. Jerison: State University of New York, Albany. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-245; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 29. **PR** no charge. **JE** 323, 022, 025. **KW** Laffer Curve. Tax Equilibrium. Social Choice. Taxation. Tax System.
AB This paper studies the form of the tax equilibrium set in simple Diamond-Mirrlees models and characterizes the corresponding Laffer curves. The curves need not ever slope downward and can have multiple local maxima. Local information about them is thus not sufficient to place restrictions on optimal choice among tax systems. In this simple framework, the problem of choice among tax systems is shown to have no more structure than an abstract social choice

problem.

Gul, Faruk

PD June 1988. **TI** Asymptotic Efficiency in Large Exchange Economies with Asymmetric Information. **AU** Gul, Faruk; Postlewaite, Andrew. **AA** Gul: Stanford University. Postlewaite: University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-06; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 36. **PR** no charge. **JE** 021, 024, 026. **KW** Incomplete Information. General Equilibrium. Noncooperative Games. Exchange Economy. Rational Expectations Equilibrium.

AB We provide conditions on an exchange economy with asymmetric information that guarantee that when that economy is replicated sufficiently often, there will be an allocation which is incentive compatible, individually rational and nearly efficient. We show this both for interim and ex post notions of efficiency and individual rationality.

Gunderson, Morley

TI An Analysis of the Earnings of Canadian Immigrants. **AU** Bloom, David E.; Gunderson, Morley.

Hahn, Frank H.

PD March 1988. **TI** On Monetary Theory. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 123; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 25. **PR** $4.00, checks payable to University of Cambridge. **JE** 311, 023, 036. **KW** Money. Money Demand. Monetary Policy. Monetary Theory.

AB In this lecture I propose to interpret Monetary Theory rather widely. In particular I shall include in its concerns questions which arise when an economy is modelled in such a way as to embrace an intrinsically worthless means of exchange. Essentially this entails that one must consider sequence economies, that is economies with trading at every date. This in turn will lead one to consider "missing markets" and a theory which could help explain why markets are missing. I shall here want to discuss some exciting new works which has important implications for Monetary Theory narrowly conceived as well as for macroeconmics.

PD July 1988. **TI** Liquidity. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 129; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 26. **PR** $4.00, checks payable to University of Cambridge. **JE** 313, 311. **KW** Portfolio. Information. Liquidity. Asset Market.

AB Liquidity and the closely related notion of flexibility are intuitively understood by economists and others. One has in mind the ease of conversion of an asset at a particular date into something else by means of a market transaction. It is connected with the idea that liquidity increases the set of choices at some date so that the liquidity of, for instance, a portfolio depends on the date specified for conversion. The rewards of liquidity are also pretty obvious: it enables agents to respond at less cost to new information (e.g., Hicks [1974]). It seems clear that this reward will go up with the value of new information and with the costs of switching (e.g., Jones and Ostroy [1984]).

PD February 1989. **TI** Hicksian Themes on Stability. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 136; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 23. **PR** $4.00, checks payable to University of Cambridge. **JE** 021, 022. **KW** Exchange Economy. Competitive Equilibrium. Intertemporal Model. Production Economy.

AB Samuelson believed that Perfect Stability as defined was not relevant to "true" stability - that is the convergence of a price adjustment process to an equilibrium. In a striking paper McFadden (1968) showed that Samuelson had been wrong in this claim. Indeed he showed that many of the special conditions which have been found sufficient for convergence (e.g. Gross Substitutability and Diagonal Dominance) are closely related to Hicks' concept.

Hall, Bronwyn H.

TI R&D, Patents, and Market Value Revisited: Is There a Second (Technological Opportunity) Factor?. **AU** Griliches, Zvi; Hall, Bronwyn H.; Pakes, Ariel.

Hammerstein, Peter

TI To Trade or Not to Trade; That is the Question. **AU** Friedman, James W.; Hammerstein, Peter.

Hammitt, James K.

PD March 1989. **TI** Research Planning for Food Safety: Preliminary Methodology and Applications. **AU** Hammitt, James K.; Cave, Jonathan A. K.; Mustafa, Mohammad, G.; Valdez, R. Burciaga. **AA** Rand Corporation. **SR** Rand Note: N-2836; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 197. **PR** not available. **JE** 621, 616, 631. **KW** Technology. Research. Food Processing.

AB This note describes a methodology for evaluating the benefits of research on selected food technologies. The methodology is illustrated by preliminary application to two case studies: (1) aflatoxin contamination of human foods and animal feed, and (2) dichloromethane use for decaffeination of coffee. Based on the decision-theoretic concept of the "expected value of information", the methodology measures the value of a research program in terms of the improvement in objective outcomes that can be attained by performing the research before selecting policy. The methodology draws on a wide range of decision-theoretic techniques, giving it broad applicability.

Hansen, Bent

PD June 1989. **TI** Factor Prices in Egypt from 1900 to World War II with International Comparisons. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-113; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 110. **PR** $3.50. **JE** 046, 226, 227, 123. **KW** Factor Prices. Developing Countries. Egypt. Growth Rates.

AB The purpose of this paper is for the period ca. 1900 to

World War II to map absolute and relative factor prices and their rates of growth for Egypt in comparison with some developed countries, England, France, Italy, and the United States; to throw some light upon the determinants of factor prices in Egypt; and to use factor prices for assessing possible biases in technological change. The underlying data work was substantial; the results are presented in Appendices I to III where among other things an estimate of rent of land in the United States is discussed in some detail.

Hansen, Gary D.

PD February 1989. **TI** Technical Progress and Aggregate Fluctuations. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 546; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 38. **PR** $2.50. **JE** 111, 621, 131, 023. **KW** Growth Model. Fluctuations. Business Cycle.

AB We compare the cyclical fluctuations exhibited by a stochastic growth model under various stochastic processes governing technical change, all of which are highly persistent. We find that the results obtained are quite sensitive to the precise form of this stochastic process. In particular, the results depend on whether growth is deterministic or stochastic and, in each case, are quite sensitive to the persistence of an innovation. The model does a relatively poor job of accounting for features of observed business cycles when technical change is difference-stationary and does a better job when technical change is trend-stationary but highly persistent.

Hardle, Wolfgang

PD March 1989. **TI** A Bootstrap Test for Positive Definiteness of Income Effect Matrices. **AU** Hardle, Wolfgang; Hart, J. D. **AA** Hardle: University of Bonn. Hart: Texas A&M University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-199; Sonderforschungsbereich 303 an der Universitat Bonn, Adenaueralle 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 19. **PR** no charge. **JE** 211. **KW** Bootstrap Method. Central Limit Theorem. Kernel Estimator.

AB Positive definiteness of income effect matrices provides a sufficient condition for the law of demand to hold. Given cross section household expenditure data, empirical evidence for the law of demand can be obtained by estimating such matrices. Hardle, Hildenbrand and Jerison (1988) used the bootstrap method to simulate the distribution of the smallest eigenvalue of random matrices and to test their positive definiteness. Here, theoretical aspects of this bootstrap test of positive definiteness are considered.

PD March 1989. **TI** Bootstrap Simultaneous Error Bars for Nonparametric Regression. **AU** Hardle, Wolfgang; Marron, J. S. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-227; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerelle 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 30. **PR** no charge. **JE** 211. **KW** Bootstrap Estimation. Kernel Estimation. Nonparametric Regression. Asymptotic Theory.

AB Simultaneous errors bars are constructed for nonparametric kernel estimates of regression functions. The method is based on the bootstrap, where resampling is done from a suitably estimated residual distribution. The error bars are seen to give asymptotically correct coverage probabilities uniformly over any number of gridpoints. Applications to an economic problem are given and comparison to both pointwise and Bonferroni-type bars is presented through a simulation study.

PD April 1989. **TI** Biased Crossvalidation for a Kernel Regression Estimator and its Derivatives. **AU** Hardle, Wolfgang; Carroll, Raymond J. **AA** Hardle: University of Bonn. Carroll: Texas A&M University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-235; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 13. **PR** no charge. **JE** 211. **KW** Nonparametric Regression. Kernel Estimation. Bandwidth Selection. Mean Squared Error.

AB For univariate nonparametric regression, we compute the mean squared error of a kernel regression estimator and its derivatives (Gasser and Muller, 1984), extending slightly the conditions of applicability of this estimator. We show how to estimate this mean squared error and thus the best smoothing parameter by what Scott and Terrell (1987) call biased crossvalidation, which is essentially a refined version of the "plug-in" method. This bandwidth estimator is shown to be asymptotically optimal in the sense of Hardle and Marron (1985).

PD May 1989. **TI** The Interplay between Statistics and Computing in Data Analysis. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-238; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 14. **PR** no charge. **JE** 214. **KW** *Data Analysis. Desktop System. Personal Computer.*

AB The personal computer is becoming a widely used tool for data analysis. I describe some minimum requirements for a data analysis machine and discuss the theoretical objects (machine data structures) needed in order to efficiently organize the interplay between statistics and computing. The ideas are shown to be implementable on a desktop system like an IBM AT or PS/2. The particular implementation discussed here is called XploRe and is written in TURBO PASCAL 5.0.

PD November 1989. **TI** Empirical Evidence on the Law of Demand. **AU** Hardle, Wolfgang; Hildenbrand, Werner; Jerison, Michael. **AA** Hardle and Hildenbrand: University of Bonn. Jerison: State University of New York, Albany. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-264; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 33. **PR** no charge. **JE** 021. **KW** General Equilibrium Models. Consumption. Comparative Statics.

AB When general equilibrium models are used to make comparative static predictions they cease to be general. This is necessarily so. Without a specific structure of the demand and supply system one cannot expect any definite comparative static results. However, in most analyses, conclusions depend upon structure imposed either by aggregating consumers into a single representative, or by assuming restrictive forms for utility or production functions. Such analyses therefore deal with special cases. The present paper considers an alternative way of imposing structure on a general equilibrium model. It considers sufficient conditions for the multimarket version of the "Law of Demand" in a consumption sector, cf. Hicks (1956).

Harris, Richard G.

PD June 1989. **TI** The New Protectionism Revisited. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 758; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 54. **PR** $3.00 Canada and U.S.; $3.50 Foreign. **JE** 421, 422, 411. **KW** Protectionism. Trade Policy. Oligopoly.

AB This paper reviews the strategic trade literature in oligopolistic industries beginning with the Brander-Spencer (1984) model of duopolistic international rent-shifting. Issues of long run equilibrium, entry conditions, and empirical estimates of the size of oligopolistic rents in tradeable goods industries are reviewed. In addition the results of simulation models of strategic trade policy are summarized. The final sections of the paper deal with issues of the retaliation by other countries against single country policies and long term policy equilibrium. It is emphasized that the Prisoners' dilemma characterization of these equilibrium may be inappropriate, and managed trade may be a more plausible outcome in oligopolistic industries than strategic trade policies.

Hars, Laszlo

PD September 1989. **TI** Reversible-Segment List. **AA** Hungarian Academy of Sciences. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89596-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 15. **PR** no charge. **JE** 213. **KW** Nonnumerical Algorithms. Data Structures. Balanced Trees. Traveling Salesman Problem.

AB A data structure is presented which stores a circular list of elements and supports the reversion of any segment of them efficiently, in addition to the usual list operations: next-element, insert, delete. Two practical special cases are given with their PASCAL programs. The first one is very simple and requires O(1) time for the next-element query, O(square root of n) time for a segment reversion. The second one requires O(log n) time for both of these operations. It has a variation, which answers m > = O(n) consecutive next-element queries in O(m) time, and still can reverse a segment in O(log n) time. These data structures can be effectively used e.g., in the simulated annealing heuristic or in local exchange heuristics for the traveling salesman problem.

Hart, J. D.

TI A Bootstrap Test for Positive Definiteness of Income Effect Matrices. **AU** Hardle, Wolfgang; Hart, J. D.

Helpman, Elhanan

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

TI Tax Credits for Debt Reduction: A Proposal. **AU** Dooley, Michael, P.; Helpman, Elhanan.

TI Quality Ladders and Product Cycles. **AU** Grossman, Gene M.; Helpman, Elhanan.

Helwege, Jean

PD December 1989. **TI** Sectoral Shifts and Interindustry Wage Differentials. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 102; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington D.C. 20551. **PG** 37. **PR** no charge. **JE** 824, 823, 821. **KW** Wage Differentials. Employment. Labor Mobility. Industry Shocks.

AB The observed differences in wages across industries may arise from a lack of worker mobility, particularly among experienced workers, which allows the effects of industry shocks to persist for considerable lengths of time. Although young workers are more likely to arbitrage wage shocks, they will have little effect on the dispersion of experienced worker's wages if young and old workers are poor substitutes in production. The empirical investigation examines the five Censuses of Population between 1940 and 1980 in detail, but unfortunately does not find evidence that these differences in pay are the result of temporary phenomena: The wage structure scarcely changes over the 40 year period. Examination of the data vis-a-vis variation in accumulated skills, however, suggests that ability may differ across workers in a way that varies systematiclaly with industry.

Hens, Thorsten

PD July 1989. **TI** A Characterization of Subjective Expected Utility in a Model with a Continuum of Consequences and a Finite Number of States. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-256; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 10. **PR** no charge. **JE** 021, 026. **KW** General Equilibrium Theory. Decision Theory. Expected Utility.

AB The expected utility hypothesis is the major paradigm in decision theory. This note analyses this hypothesis from the viewpoint of general equilibrium theory under uncertainty, introduced by Debreu (1959a, Chapter 7). The assumption that preferences admit an expected utility representation leads to powerful results in many extensions and applications of this model. Therefore, it is desirable to have a preference characterization of expected utility for the general equilibrium model. Such a characterization makes the assumptions underlying the expected utility hypothesis transparent. In the terminology of decision theory, we look for a characterization of subjective expected utility in a model with a continuum of consequences and a finite number of states.

Hermalin, Benjamin E.

TI The Role of Outside Considerations in the Design of Compensation Schemes. **AU** Caillaud, Bernard; Hermalin, Benjamin E.

PD October 1989. **TI** Moral Hazard and Verifiability. **AU** Hermalin, Benjamin E.; Katz, Michael L. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-122; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 39. **PR** $3.50. **JE** 022, 026, 213. **KW** Principal-Agent Model. Renegotiation.

AB We present a principal-agent model in which, after the agent has taken an action, the two parties can go to court to seek a ruling on what the agent has done. The true action taken is observable to both parties, but cannot be verified before the court, the court's ruling is subject to error. We demonstrate that, if the stochastic relationship between the optimal action and the court's ruling is distinct from the stochastic relationship between any other strategy and the court's ruling, then the

principal and agent can achieve the same outcome that they would have if the action were verifiable. This result holds even when both parties are risk averse, and is a consequence of our allowing for renegotiation after the action has been taken, but before the parties go to court.

Hernandez D., Alejandro

PD June 1989. **TI** The Dynamics of Competitive Equilibrium Allocations with Borrowing Constraints. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8917; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 24. **PR** no charge. **JE** 021, 111. **KW** Borrowing Constraints. Heterogeneous Consumers. Optimization Problem.
AB Despite the suboptimality of equilibria with borrowing constraints, such an equilibrium for an economy populated by finitely many infinitely lived heterogeneous consumers can be obtained by solving an artificial optimization problem. This equivalence between equilibria and a single-agent optimization is used to show the dynamic properties of equilibrium accumulation paths in a one sector economy. It is proved that if aggregate capital income is increasing in the capital stock, the turnpike property holds and in the long-run borrowing constraints do not bind.

PD July 1989. **TI** Equilibrium with Borrowing Constraints: The Deterministic Case. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discssion Paper: 8916; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 34. **PR** no charge. **JE** 021, 022. **KW** Borrowing Constraints. Competitive Equilibrium. Asset Markets. Portfolio.
AB This paper establishes the existence of a competitive equilibrium for a production economy populated by a finite number of infinitely lived agents who face borrowing constraints. In every period, agents participate in asset markets and spot commodity markets. The borrowing constraints are introduced as institutional constraints that requires individuals to hold at every period a portfolio with a nonnegative value.

Hildebrandt, Gregory G.

PD December 1988. **TI** SDI and the Soviet Defense Burden. **AA** Rand Corporation. **SR** Rand Note: N-2662; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 36. **PR** not available. **JE** 114, 124. **KW** Defense Spending. Soviet Union. National Defense. Military Spending.
AB The soviets' response to the Strategic Defense Initiative (SDI) must be understood within the context of their deteriorating economic situation and need to modernize their economy. This note evaluates the defense burden to the Soviets of both an offsetting and an emulation response to the U.S. SDI effort. The analysis is conducted within the context of General Secretary Gorbachev's modernization program, which is designed to increase the productivity of economic resources. The analysis suggests that the Soviets can partially offset a U.S. SDI effort with a ruble expenditure that is a small percentage of current defense spending.

TI Long-Term Economic and Military Trends, 1950-2010. **AU** Wolf, Charles Jr.; Hildebrandt, Gregory G.; Kennedy, Michael; Henry, Donald P.; Terasawa, Katsuaki; Yeh, K. C.; Zycher, Benjamin; Bamezai, Anil; Hayashi, Toshiyo.

Hildenbrand, Werner

TI Empirical Evidence on the Law of Demand. **AU** Hardle, Wolfgang; Hildenbrand, Werner; Jerison, Michael.

Hill, Paul T.

TI The Defense Department's Support of Industry's Independent Research and Development (IR&D). **AU** Alexander, Arthur J.; Hill, Paul T.; Bodilly, Susan J.

Hirshleifer, Jack

TI The Limits of Reciprocity: Solution Concepts and Reactive Strategies in Evolutionary Equilibrium Models. **AU** Coll, Juan; Carlos Martinez; Hirshleifer, Jack.

Hoang, Chinh T.

PD September 1989. **TI** An O(log n) Parallel Algorithm for Testing Bipartite Graphs. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89595-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 10. **PR** no charge. **JE** 213. **KW** Bipartite Graphs. Parallel Algorithms.
AB We present a parallel algorithm to recognize a bipartite graph in O(log n) time, using O(max((m+n)a(m,n)/log n, n)) processors. Where n and m are, respectively, the number of vertices and the number of edges of the graph being considered. Our model of computation is the Concurrent Read Concurrent Write PRAM Model.

Hoover, Kevin D.

PD October 1989. **TI** Methodology and the New Classical Macroeconomics: A Joint Appraisal. **AA** University of California, Davis. **SR** University of California at Davis Research Program in Applied Macro and Macro Policy: 65; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 64. **PR** no charge. **JE** 031, 036, 011. **KW** New Classical Macroeconomics. Scientific Revolutions. Methodology. Economic Thought.
AB The development of the new classical macroeconomics is taken as a test case for Kuhn's account of scientific revolutions and Lakatos' methodology of scientific research programs. It is shown that neither adequately accounts for this development. Following hints from Kuhn, it is argued that theories and empirical studies are concrete examples that form families of related research without the sharp programmatic boundaries of Lakatos' methodology or the abrupt transitions of Kuhn's scientific revolutions.

Horioka, Charles Yuji

PD December 1988. **TI** Why is Japan's Household Saving Rate So High? A Literature Survey. **AA** Osaka University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 145; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 53. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 122, 921. **KW** Japan, Saving. Consumption. Households.
AB The article surveys the literature on household saving in Japan and reviews the evidence concerning the various factors

that have been suggested as possible causes of Japan's high and rising household saving rate. Conceptual differences and deficiencies, the age structure of the population (especially the low proportion of the aged), the bonus system, and the rapid rate of income growth are found to be among the most important factors. Another finding is that Japan's household saving rate is likely to continue its recent decline as many of the factors that helped raise it in the past become less applicable.

Hughes Alan

TI The Rise and Fall of the Golden Age. **AU** Glyn, Andrew; Hughes Alan; Lipietz, Alain; Singh, Ajit.

Hughes, A.

TI Institutional Investment, Mergers and the Market for Corporate Control. **AU** Cosh, A. D.; Hughes, A.; Lee, Kevin; Singh, Ajit.

Hughes, Gordon

PD April 1989. **TI** Measuring Unemployment and Cyclical Participation in the British Labour Market. **AU** Hughes, Gordon; McCormick, Barry. **AA** Hughes: University of Edinburgh. McCormick: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8910; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 18. **PR** no charge. **JE** 824, 821. **KW** Unemployment. Labor Market. Search Theory.

AB Unemployment rates for the UK are ordinarily calculated using National Insurance registration data. This paper uses individual data from the Labour Force Survey to (i) determine unemployment rates on an aggregate and socio-economic group basis using search based criteria and to (ii) estimate the extent to which search is sensitive to labor market slack. We find that the probablilty of ILO/OECD search amongst the jobless is insensitive to labor market conditions, whereas the probability of employer contact search amongst the jobless is significantly greater in low unemployment markets. Thus measures of "discouraged" workers hinge on the search definition adopted.

PD September 1989. **TI** Is Migration in the 1980's Narrowing the North-South Divide?. **AU** Hughes, Gordon; McCormick, Barry. **AA** Hughes: University of Edinburgh. McCormick: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8913; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 23. **PR** no charge. **JE** 823, 824, 821. **KW** Unemployment. Migration. Labor Mobility.

AB Despite its comparatively small size Great Britain is characterized by substantial and largely stable differences in regional unemployment rates. The sharp recession in the early 1980's and the following period of high unemployment has further heightened concern about the grave unemployment circumstances in certain regions, primarily in the North of the country. Our primary objective in this paper is to investigate the extent to which migration acts as an equilibrating mechanism, responding to labor market signals, to prompt a net flow of migrants from high unemployment to low unemployment regions. In contrast to most studies of migration based on the analysis of individual behavior, which have focused on the role of personal or household characeteristics as "causes" of migration, we focus on the contribution of migration to reducing unemployment differentials with particular attention to the differences between occupational groups.

Insel, Aysu

PD July 1989. **TI** The Turkish Private Saving Behaviour. **AU** Insel, Aysu; McKenzie, George. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8909; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 18. **PR** no charge. **JE** 121, 132, 921. **KW** Turkey. Money Illusion. Foreign Capital. Private Savings.

AB The purpose of this paper to examine the determinants of savings behavior in the Turkish private sector. We test for both the short-run and long-run significance of the following variables: disposable income, net financial wealth, the foreign capital inflow, the bank deposit rate, the lending rate, the inflation rate, and the ratio of working to non-working population. We have also tested for the presence of money illusion. We have found that there exists both short-run and long-run money illusion in Turkish private savings behavior.

Iwai, Katsuhito

PD December 1988. **TI** Fiat Money and Aggregate Demand Management in a Search Model of Decentralized Exchange: Addendum. **AA** University of Pennsylvania, Princeton University and University of Tokyo. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-01; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 17. **PR** no charge. **JE** 023. **KW** Aggregate Supply. Classical Theory. Macroeconomics. Money.

AB In our preceding paper (1988b) we started from a detailed specification of a search theoretic model of decentralized exchange and ended up with a textbook like dichotomy between "Keynesian" non-neutrality and "classical" neutrality of money. Setting aside the theoretical presumption for the built-in stickiness of nominal prices we pointed out therein, does this mean that the contribution of our search theoretic model to macroeconomics was only to reproduce these well-known propositions at a level as elementary as that of undergraduate textbooks? The answer to this question, however, is negative, and the purpose of this addendum is to elucidate this hastily voiced negative answer in more detail.

Ize, Alain

TI Adjustment Uncertainty, Confidence, and Growth: Latin America After the Debt Crisis. **AU** Blejer, Mario I.; Ize, Alain.

Jackson, Matthew O.

PD May 1989. **TI** Implementation in Undominated Strategies: A Look at Bounded Mechanisms. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 833; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 37. **PR** no charge. **JE** 026, 025, 021, 213. **KW** Dominated Strategies. Mechanism Design. Private Information. Social Choice. Exchange

Economy.

AB This paper addresses the issue of full implementation when we place a natural restriction on the class of mechanisms we consider. In particular, we rule out a feature common in the mechanisms used in constructive proofs in the literature: an integer construction. That is, a part of the message space in which the agent who announces highest integer is rewarded. These constructions are used to assure that undesired message combinations do not form an equilibrium. In our setting, agents know their own preferences. It is shown that if preferences satisfy a basic condition, then any social choice function can be fully implemented in undominated strategies. In contrast, if we place a restriction (which rules out integer games) on the class of mechanisms we admit, then a social choice function which can be fully implemented in undominated strategies is strategy-proof.

Jensen, Richard

PD June 1988. **TI** Smuggling, Camouflaging, and Market Structure. **AU** Jensen, Richard; Thursby, Jerry; Thursby, Marie. **AA** Jensen: University of Kentucky. Thursby and Thursby: Purdue University. **SR** National Bureau of Economic Research Working Paper: 2630; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $2.00. **JE** 916, 611. **KW** Smuggling. Tobacco. Cigarettes. Law Enforcement.

AB We examine how market structure and enforcement affect smuggling and welfare in a model where smuggling is camouflaged by legal sales. Conditions are given for when some, but not necessarily all, firms smuggle. With camouflaging, the market price is below the price when all sales are legal, so smuggling improves welfare if the price effect outweighs excess smuggling cost. This welfare effect is directly related to the degree of competition. Increased enforcement in this model potentially reduces welfare. The model is shown to be consistent with evidence on cigarette smuggling in the United States for 1975-1982.

Jerison, David

PD May 1989. **TI** Approximately Rational Consumer Demand and Ville Cycles. **AU** Jerison, David; Jerison, Michael. **AA** D. Jerison: University of Cambridge. M. Jerison: State University of New York, Albany. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-246; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 26. **PR** no charge. **JE** 022. **KW** Consumer Demand. Slutzky Matrix. Utility Maximization. Revealed Preference. Consumption.

AB Recent research has shown that small deviations from optimizing behavior can have substantial effects on economic equilibria. Nonoptimizing demand behavior is of particular importance since individual consumer expenditure data often violate the strong axiom of revealed preference, and since the demand of an entire consumption sector is often modeled as the demand of a representative consumer even though it cannot generally be derived from maximization of a single utility function. This paper describes and compares various measures of the extent to which demand behavior deviates from behavior derivable from utility maximization.

Jerison, Michael

TI Approximately Rational Consumer Demand and Ville Cycles. **AU** Jerison, David; Jerison, Michael.

TI Taxation as a Social Choice Problem: The Scope of the Laffer Argument. **AU** Guesnerie, Roger; Jerison, Michael.

TI Empirical Evidence on the Law of Demand. **AU** Hardle, Wolfgang; Hildenbrand, Werner; Jerison, Michael.

Jeroslow, Robert G.

PD May 1989. **TI** Gainfree Leontief Flow Problems. **AU** Jeroslow, Robert G.; Martin, R. Kipp; Rardin, Ronald L.; Wang, Jinchang. **AA** Jeroslow and Wang: Georgia Institute of Technology. Martin: University of Chicago. Rardin: Purdue University and Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8915; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 41. **PR** no charge. **JE** 213. **KW** Linear Programming. Integer Programming. Networks Flows. Leontief Matrices.

AB Leontief substitution systems have been studied by economists and operations researchers for many years. We show how Leontief substitution systems are naturally viewed as hypergraph flow problems and that many properties of Leontief systems are simple consequences of the structural phenomena in the underlying hypergraph. We give a strongly polynomial non-simplex algorithm for hypergraph flow problems which satisfy a gainfree property leading to acyclic extreme solutions. Integrality proofs follow easily from this algorithm. Another structural property, disjoint reachability, provides necessary and sufficient conditions for the integer solutions to be binary.

John, Kose

PD September 1989. **TI** Expected Returns and Accounting Betas. **AU** John, Kose; Reisman, Haim. **AA** John: New York University. Reisman: Technion. **SR** New York University Salomon Brothers Center Working Paper: 529; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 11. **PR** no charge. **JE** 313, 541. **KW** Asset Returns. Accounting. Capital Markets.

AB The paper studies sufficient conditions so that return betas and accounting betas are equal. The paper demonstrates that this relationship is very general and may hold under many possible scenarios. The method in which this result is derived is very general and can be applied in deriving testable restrictions between fundamentals, broader in context than that of accounting variables.

PD September 1989. **TI** Strategic Insider Trading Around Dividend Announcements: Theory and Evidence. **AU** John, Kose; Lang, Larry H. P. **AA** John: New York University. Lang: The Ohio State University. **SR** New York University Salomon Brothers Center Working Paper: 531; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 32. **PR** no charge. **JE** 522, 521, 514, 512. **KW** Insider Trading. Dividends. Corporations.

AB The informational role of strategic insider trading around corporate dividend announcements is studied. Evidence on the announcement effect of dividend initiations is presented where insider trading immediately prior to the announcement has

significant explanatory power. For firms with insider selling prior to dividend initiation announcement, the excess returns are (insignificantly) negative and significantly lower than that of the remaining firms (with no insider trading or just insider buying). Such a differential announcement effect is one of the predictions of our "efficient" signalling equilibrium where the extent of insider trading and changes in dividends convey to the market, changes in private information held by corporate insiders. Several testable announcement effects are derived from the model.

Johnson, Leland L.

PD December 1988. **TI** The Future of INTELSAT in a Competitive Environment. **AA** Rand Corporation. **SR** Rand Note: N-2848; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 49. **PR** not available. **JE** 635, 616, 521, 511. **KW** Communications. Telecommunications. Satellites.

AB The International Telecommunications Satellite Organization (INTELSAT) has been an important instrument of U.S. foreign policy because it has spread the benefits of advanced telecommunications technology to nations--especially developing nations--throughout the world. With the growing number of competing satellite systems, and the installation of transoceanic fiber optic cables, concerns have arisen about INTELSAT's ability to continue its role as global provider of service. This study projects and assesses possible financial futures faced by INTELSAT in this increasingly competitive environment, and suggests appropriate INTELSAT pricing strategies.

PD January 1989. **TI** Price Caps in Telecommunications Regulatory Reform. **AA** Rand Corporation. **SR** Rand Note: N-2894; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 38. **PR** not available. **JE** 613, 635. **KW** Regulation. Telecommunications. Prices. Price Ceilings.

AB There has been a longstanding debate about the perverse incentives associated with the "cost plus" nature of rate-of-return (ROR) regulation. This note considers the benefits of price caps compared with ROR regulation. The author draws on basic economic theory supplemented by evidence from filings with the Federal Communications Commission and from Britain's experience with price cap regulation. Among his findings, the author concludes that, under a wide range of circumstances, price cap regulation will probably achieve results superior to those of traditional ROR regulation.

Jorgenson, Dale W.

PD November 1989. **TI** Environmental Regulation and U.S. Economic Growth. **AU** Jorgenson, Dale W.; Wilcoxen, Peter J. **AA** Jorgenson: Harvard University. Wilcoxen: University of Melbourne. **SR** Harvard Energy and Environmental Policy Center Discussion Paper: E-89-14; Energy and Environmental Policy Center, J.F. Kennedy School of Government, Harvard University, 79 John F. Kennedy St., Cambridge, MA 02138. **PG** 66. **PR** $7.50. **JE** 613, 721, 722. **KW** Government Regulations. Regulations. Environment. Natural Resources.

AB Environmental regulations have reduced the annual growth rate of the U.S. gross national product by 0.191 percent over the period 1973-1985. This figure is several times the reduction in growth estimated in previous studies. Drs. Jorgenson and Wilcoxen constructed a detailed model of the U.S. economy that included the major determinants of long-term growth and then measured the growth in the economy with and without environmental regulation.

Jovanovic, Boyan

PD November 1989. **TI** Long Waves and Short Waves: Growth Through Intensive and Extensive Search. **AU** Jovanovic, Boyan; Rob, Rafael. **AA** Jovanovic: New York University. Rob: University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-13; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 38. **PR** no charge. **JE** 621. **KW** Inventions. Technology.

AB This paper endogenizes the frequency of major discoveries and the extent of their refinement. Four axioms deliver a one-parameter family of beliefs that guide exploratory effort. Such effort trades off the prospect of a major new discovery against the chance of successfully refining discoveries made in the past. The only other parameter is the cost of making new discoveries relative to the cost of refining old ones. The paper derives time series properties of inventive activity as they relate to the two parameters, and it discusses several specific inventions and their subsequent refinement. In doing so, the paper arguably enhances our understanding of the process of discovery.

Joyce, Theodore J.

PD June 1989. **TI** The Impact of a Ban on Legalized Abortion on Adolescent Childbearing in New York City. **AU** Joyce, Theodore J.; Mocan, Naci. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3002; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** $2.00. **JE** 913, 921. **KW** Families. Births. Pregnancy. Teenagers.

AB This paper attempts to forecast the change in adolescent childbearing among New York City residents following a ban on legalized abortion. With monthly data on the number of births to white and black adolescents from January 1963 to December 1987 we used an interrupted time-series analysis to estimate the change in adolescent childbearing that followed the liberalization of the New York State abortion law in 1970. We found the level of births to black adolescents living in New York City fell 18.7 percent between 1970 and 1971. The level of white births fell 14.1 percent. The results suggest that a prohibition on legalized abortion would have a substantial increase in adolescent childbearing across the U.S. although the magnitude of the change will vary according to local conditions.

Jullien, Bruno

PD July 1989. **TI** Efficiency Wage and Macroeconomic Policy. **AU** Jullien, Bruno; Picard, Pierre. **AA** Jullien: CEPREMAP. Picard: University of Paris and CEPREMAP. **SR** CEPREMAP Discussion Paper: 8918; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 44. **PR** 20 ff. **JE** 023, 821, 321. **KW** Overlapping Generation Model. Efficiency Wages. Wage Contracts. Golden Rule. Macroeconomic Policy.

AB A two period monetary overlapping generations model

with efficiency wages and rational expectations is constructed in which the workers' effort is unobservable and wage contracts verify an incentive compatibility constraint to prevent shirking. The dynamics is similar a market clearing neoclassical model in which the labor supply curve would be replaced by a quasisupply curve that mixes agents' preferences and technological parameters. Normative properties of the model for macroeconomic policies differ from those of a market clearing model. It is shown that at the optimal long run policy, the golden rule does not hold and that employment subsidies are welfare improving.

Kalai, Ehud

TI The Complexity of Eliminating Dominated Strategies. **AU** Gilboa, Itzhak; Kalai, Ehud; Zemel, Eitan.

PD October 1989. **TI** The Strength of a Little Perfection. **AU** Kalai, Ehud; Neme, Alejandro. **AA** Neme: Universidad Nacional de San Luis. Kalai: Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 858; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 32. **PR** no charge. **JE** 026. **KW** Repeated Games. Nash Equilibrium. Subgame Perfect. Folk Theorems.
AB The paper deals with three related issues. 1. It introduces a measure of partial subgame perfection for equilibria of repeated games. 2. It illustrates that the folk theorem discontinuity generated by small complexity costs, as exhibited by Abreu and Rubinstein disappears in the presence of any level of perfection. 3. It shows that reactive strategy equilibria, such as tit-for-tat, cannot be subgame perfect, even partially so. As a corollary, this shows a need to use full automata rather than exact automata when studying complexity and perfection in repeated games.

Kamecke, Ulrich

PD December 1989. **TI** The Role of Competition for an X-inefficient Organization. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-265; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 16. **PR** no charge. **JE** 022, 514, 511. **KW** Competition. Monopoly. Profit Maximization. Job Market.
AB This paper presents a manager controlled firm which does not minimize long run costs even though there is no moral hazard problem involved and the manager maximizes a profit depending salary. The inefficiency is caused by competition in the job market since the manager uses some of his freedom inside the firm to protect himself against rivals when he decides on matters that affect the firm's profitability in the time after his salary is renegotiated. The inefficiency is limited by competition in the output market.

Kan, William

PD November 1989. **TI** The Long and Short of Industrial Strength Pricing. **AU** Kan, William; Krieger, Reva; Tinsley, P.A. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 99; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington D.C. 20551. **PG** 68. **PR** no charge. **JE** 635, 227, 134. **KW** Commodity Prices. Capacity Utilization. Manufacturing. Prices.
AB This paper presents long and short run empirical models of U.S. manufacturing producers' prices. Principal findings that contradict recent studies are: (i) indexes of primary commodity prices appear to have stationary long run relationships with indexes of final product prices; and (ii) departures of industry capacity utilization rates from preferred or "natural" rates of activity are significant determinants of the levels of revelant real industry prices. The first finding illustrates that the homogeneity postulate of comovement of nominal price level is maintained by long run economic forces for both auction and inertial prices, even if short run behavior of primary commodity prices often reflects commodity specific supply and demand disturbances. The second finding is an empirical demonstration of the homogeneity postulate corollary that deviations from natural rates of activity are not sufficient indicators of persistent inflation.

Kandori, Michihiro

PD September 1989. **TI** Correlated Demand Shocks and Price Wars During Booms. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-11; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 20. **PR** no charge. **JE** 611, 022, 026, 227. **KW** Supergame. Price Wars. Demand Shocks. Prices. Price Competition. Collusion.
AB The supergame theoretic model of price competition (Rotemberg and Saloner) is reexamined in the case of serially correlated demand shocks, and the equilibrium price is shown to exhibit the same countercyclical movement as in the i.i.d. case if the discount factor and the number of firms, N, satisfy certain relationships. As in the original model with i.i.d. demand shocks, collusion is possible if and only if the discount factor is between (N-1)/N, and 1. It is shown that the equilibrium price under general Markov demand shocks converges to the price under i.i.d demand shocks, if the discount factor converges to (N-1)/N, or if the discount factor converges to 1. Hence when (N-1)/N is close to one, the presence of serial correlation does not change the qualitative nature of price behavior much if collusion is possible at all.

PD October 1989. **TI** Repeated Games Played by Overlapping Generations of Players. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-10; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 16. **PR** no charge. **JE** 022, 026, 511. **KW** Repeated Games. Folk Theorem. Cooperative Games. Overlapping Generation Model.
AB The present paper tries to explain cooperative behavior in an organization run by a sequence of long but finitely lived agents. It is shown that in infinitely repeated games with overlapping generations of finitely lived players, any payoffs which dominate the minimax point can approximately be achieved by a subgame perfect equilibrium if the life spans and the overlapping periods are sufficiently large and the agents do not much discount future payoffs.

PD November 1989. **TI** Social Norms and Community

Enforcement. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-14; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 31. **PR** no charge. **JE** 022, 026, 931, 025. **KW** Repeated Games. Folk Theorem. Social Norms. Community. Cooperative Games.

AB The present paper extends the theory of self-enforcing agreements in a long term relationship (the Folk Theorem in repeated games) to the situation where agents change their partners over time. Cooperation is sustained because defection against one agent causes sanction by others, and the paper shows how such a "social norm" is sustained by self-interested agents under various degrees of observability. Two main results are presented. The first one is an example where a community can sustain cooperation even when each agent knows nothing more than his personal experience. The second shows a Folk Theorem that the community can realize any mutually beneficial outcomes when each agent carries a label such as reputation, membership, license and the labels are revised in a systematic way.

PD November 1989. **TI** The Use of Information in Repeated Games with Imperfect Monitoring. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-18; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 18. **PR** no charge. **JE** 022, 026, 511. **KW** Repeated Games. Sequential Equilibrium. Monitoring. Signalling. Long Term Relationships.

AB The present paper formalizes the idea that improved monitoring helps coordinate in long term relationships. Specifically, pure strategy sequential equilibrium payoff set is shown to expand (in the sense of set inclusion) in repeated games with imperfect monitoring when the quality of the signal improves in Blackwell's sense, and the directions of the expansion are identified.

Kaplow, Louis

PD June 1989. **TI** Government Relief for Risk Associated with Government Action. **AA** Harvard Law School. **SR** National Bureau of Economic Research Working Paper: 3006; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** $2.00. **JE** 321, 026, 024. **KW** Government Policy. Risk. Uncertainty. Government Relief. Private Insurance.

AB A significant source of risk arises from uncertainity concerning future policy. Government action - - tax reform, deregulation, judicial decisions, budgetary shifts - - produces gains and losses for those who invested under preexisting rules. The effects of government relief - - compensation, grandfathering, phase-ins - - on ex ante incentives and risk bearing are examined in a model in which private insurance is taken into account. It is demonstrated that government relief is inefficient, even when private insurance is subject to moral hazard, because relief shields individuals from some of the effects of their actions.

PD June 1989. **TI** Incentives and Government Relief for Risk. **AA** Harvard Law School. **SR** National Bureau of Economic Research Working Paper: 3007; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 11. **PR** $2.00. **JE** 321, 026. **KW** Government Relief. Private Insurance. Moral Hazard. Risk.

AB Government relief is offered for a wide range of risks -- natural disaster, economic dislocation, sickness and injury. This paper explores the effects of such relief on incentives and the allocation of risk in a model with private insurance. It is shown that government relief is inefficient, even when its level is less than the private insurance coverage that individuals would otherwise have purchased and even when private insurance coverage is incomplete due to problems of moral hazard.

PD June 1989. **TI** The Optimal Probability and Magnitude of Fines for Acts that are Definitely Undesirable. **AA** Harvard Law School. **SR** National Bureau of Economic Research Working Paper: 3008; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 13. **PR** $2.00. **JE** 916, 026. **KW** Deterrence. Law. Law Enforcement. Risk.

AB Even when society would wish to deter all acts of some type, such as tax evasion and many common crimes, the benefits from deterrence often will be insufficient to justify the expenditures on enforcement that would be required to deter everyone. If some individuals are not deterred, however, they will bear risk when fines are employed as a sanction. As a result, it may be optimal to reduce total risk-bearing costs by reducing the number of individuals who bear any risk. This can be accomplished by increasing enforcement above the level that would be justified considering only the benefits of deterrence and the direct costs of enforcement. Another possibility is that it may be optimal to reduce the risk borne by those who act, by employing fines below the maximum feasible level.

Karp, Larry

TI Delegation Games in Customs Unions. **AU** Gatsios, Konstantine; Karp, Larry.

TI The Welfare Effects of Imperfect Harmonization of Trade and Industrial Policy. **AU** Gatsios, Konstantine; Karp, Larry.

PD December 1989. **TI** Intertemporal Consistency Issues in Depletable Resources. **AU** Karp, Larry; Newbery, David M. **AA** Karp: University of California, Berkeley. Newbery: University of Cambridge. **SR** Centre for Economic Policy Research Discussion Paper: 346; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 55. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 721, 422, 632. **KW** Natural Resources. Exhaustible Resources. Tariffs. Imports.

AB The current price of a depletable resource depends on future demands and supplies, which affect how rapidly the resource is exhausted. Plans for future levels of demand and supply can therefore affect the current price. If agents have market power and can commit to future plans, then such plans may be dynamically inconsistent, in that given an opportunity to revise those plans at some later date, they wish to deviate from the initial announcement. We survey cases in which such plans are dynamically inconsistent and discuss solution concepts such as Markov perfect equilibria, time consistent equilibria and feedback forms of open-loop equilibria. Different issues arise depending whether market power is on the

supply side, or on the demand side.

PD December 1989. **TI** Time Consistent Oil Import Tariffs. **AU** Karp, Larry; Newbery, David M. **AA** Karp: University of California, Berkeley. Newbery: University of Cambridge. **SR** Centre for Economic Policy Research Discussion Paper: 344; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 27. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 721, 422, 411. **KW** Natural Resources. Tariffs. Imports. Exhaustible Resources.

AB Open-loop Nash extraction plans of exhaustible resource producers (in which producers take the plans of others as given) are time-consistent, but the normal specification of the open-loop import plans of countries with market power (in which countries take the import tariffs of other importers as given) are normally time-inconsistent. The paper shows why, and derives time-consistent, open-loop Nash tariffs in a natural formulation of the problem. The two tariffs can be readily computed and compared, and differ except for a special class of import demands. The time paths of tariffs and the welfare cost of an inability to commit are calculated for a dominant importer. The welfare costs are small if its market share is below one half.

Katseli, Louka T.

PD October 1989. **TI** The Political Economy of European Integration: From Euro-Sclerosis to Euro-Corporatism. **AA** University of Athens. **SR** Centre for Economic Policy Research Discussion Paper: 317; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 29. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 423, 421, 422. **KW** Trade Policy. Oligopoly. Economic Integration. Comparative Advantage.

AB The paper analyzes the evolution of coalitions over the early 1980's between business interests, government authorities in the larger industrialized countries and European institutions, notably the Commission, to promote policies aimed at securing a European comparative advantage in oligopolistic industries. Strategic gains for such firms are derived through the exploitation of economies of scale associated with expansion of production and reduction in average unit costs. The creation of the Internal Market is a prerequisite for the success of strategic trade policies since enlargement and integration of the home market gives firms a better base for oligopolistic competition internationally.

Katz, Avery

PD February 1989. **TI** Your Terms or Mine? The Duty to Read the Fine Print in Contracts. **AA** University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-27; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 30. **PR** no charge. **JE** 916, 026. **KW** Contract Theory. Bargaining Games. Common Law. Warranties. Product Quality.

AB This paper examines the legal rules that govern the interpretation of standardized form contracts. Different legal rules induce different bargaining games between buyers and sellers, and can have consequences for the efficiency of exchange when communication is costly. The traditional common-law rule, which binds an assenting recipient of a form contract to fine print terms he has not read, has little effect in encouraging parties to read contracts, contrary to the conventional wisdom among lawyers. Instead, there is little practical difference between a rule that nominally holds the drafter of a form contract responsible for communicating its terms, and one that holds the receiving party responsible. Moreover, the traditional rule may be Pareto inferior to a rule providing presumptive warranties when negotiation is costly.

Katz, Michael L.

TI Moral Hazard and Verifiability. **AU** Hermalin, Benjamin E.; Katz, Michael L.

Keeler, Theodore E.

PD October 1989. **TI** Airline Deregulation and Market Performance: The Economic Basis for Regulatory Reform and Lessons from the U.S. Experience. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-123; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 54. **PR** $3.50. **JE** 612, 615, 613. **KW** Airline Deregulation. Regulation. Airlines.

AB There is much evidence on the effects of airline deregulation in the United States which could be relevant to plans for regulatory reform in Europe. This paper summarizes that evidence from varied sources, and suggests that the U.S. experience has been basically a good one; similar policies could be expected to yield equivalently good results in Europe. The paper also suggests ways in which other countries could learn from the U.S. experience and avoid some mistakes made in the U.S.

Kehoe, Timothy J.

PD March 1987. **TI** Indeterminacy in Applied Intertemporal General Equilibrium Models. **AU** Kehoe, Timothy J.; Levine, David K. **AA** Kehoe: Clare College, Cambridge. Levine: University of California, Los Angeles. **SR** University of Cambridge Economic Theory Discussion Paper: 114; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 49. **PR** $4.00, checks payable to University of Cambridge. **JE** 021, 022. **KW** Overlapping Generations Model. Exchange Equilibrium. Consumption. Dynamic Models.

AB In this paper we consider pure exchange overlapping generations models with n goods in each period. We argue that for a model with a nonzero stock of nominal debt there is potentially an n dimensional indeterminacy, while for a model with no nominal debt there is potentially an n-1 dimensional indeterminacy. Thus relative prices within a period can be indeterminate. Although our results agree with those previously known for the case where there is one good in every period, they indicate that indeterminacy does not depend on the existence of fiat money or other assets. Furthermore, even in pure exchange models with no aggregate debt or assets, our results indicates that equilibria may be indeterminate or not whether or not they are Pareto efficient.

PD May 1987. **TI** Steady States and Determinacy of Equilibria in Economies with Infinitely Lived Agents. **AU** Kehoe, Timothy J.; Levine, David K.; Romer, Paul M. **AA** Kehoe: Clare College, Cambridge. Levine: University of California, Los Angeles. Romer: University of Rochester. **SR** University of Cambridge Economic Theory Discussion Paper: 113; Department of Applied Economics, University of

Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 37. **PR** $4.00, checks payable to University of Cambridge. **JE** 021, 024. **KW** Social Welfare Function. General Equilibrium Model. Intertemporal Model. Production Economy.

AB Joan Robinson frequently argued that neoclassical general equilibrium theory could not determine the rate of interest in an intertemporal model. In this paper we consider a production economy with a finite number of heterogeneous, infinitely lived consumers. We show that, for almost all endowments, equilibria that converge to a nondegenerated stationary state or cycle are locally unique. We do so by stating the equilibrium conditions that equate spending and income for each comsumer entirely in terms of first period factor endowments and derivatives of a social value function.

PD June 1987. **TI** Determinacy of Equilibrium in Large-Square Economies. **AU** Kehoe, Timothy J.; Levine, David K.; Mas-Colell, Andrew; Zame, William R. **AA** Kehoe: Clare College, Cambridge. Levine: University of California, Los Angeles. Mas-Colell: Harvard University. Zame: State University of New York, Buffalo. **SR** University of Cambridge Economic Theory Discussion Paper: 112; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 44. **PR** $4.00, checks payable to University of Cambridge. **JE** 021, 022. **KW** Exchange Equilibrium. Excess Demand Function. Consumption. Linear Space.

AB In this paper we argue that indeterminacy of equilibrium is a possibility inherent in economies with a double infinity of agents and goods, large-square economies. We develop a framework that is quite different from the overlapping generations one and that is amenable to analysis by means of differential calculus in linear spaces. The commodity space is a separable, infinite-dimensional Hilbert space, and each of a continuum of consumers is described by means of an individual excess demand function defined on an open set of prices. In this setting, we prove an analog of the Sonnenschein-Mantel-Debreu theorem. Using this result, we show that the set of economies whose equilibrium sets contain manifolds of arbitrary dimension is non-empty and open in the appropriate topology.

PD September 1989. **TI** Gross Substitutability and the Weak Axiom of Revealed Preference. **AA** University of Minnesota. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-258; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 20. **PR** no charge. **JE** 021. **KW** Revealed Preference. Substitutability. Monte Carlo Study. Demand Functions.

AB This paper investigates the relationship between gross substitutability and the weak axiom of revealed preference in excess demand functions. Gross substitutability implies the weak axiom when the number of goods, n, is less than four. There are robust counterexamples to this proposition when n >= 4. Nonetheless, Monte Carlo experiments indicate that violations of the weak axiom are extremely rare in functions that satisfy gross substitutability. They also reveal, however, a new class of demand function that violates the weak axiom. These results are of interest because of the close relationship of the weak axiom to uniqueness of equilibrium in production economies.

Keiko, Shimono

PD October 1989. **TI** Demand for Insurance: Choice Between Safe Assets, Risky Assets and Insurance in Japan. **AU** Keiko, Shimono; Toshiaki, Tachibanaki. **AA** Keiko: Nigato Sangyo University. Toshiaki: Kyoto University. **SR** Australian National University Working Paper in Economics and Econometrics: 188; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 22. **PR** no charge. **JE** 921. **KW** Savings. Insurance. Risky Assets. Japan.

AB In most of the studies of the demand for insurance, insurance has been treated only as an expenditure for security, not as a saving. This treatment is reasonable if term insurance is a popular type of insurance policy. However, in Japan, insurance was introduced initially as a kind of saving. Now most Japanese expect a high return as well as security from insurance. We begin to show in this paper that, in general, endowment insurance can be dealt with as a sort of financial good, because its purchase depends on the "interest rate" like other ones. As a result, we can stimulate the demand for insurance using a sequential Tobit model in the case where three types of assets exist; safe assets, risky assets and insurance. We conclude from the empirical results that insurance is an inferior good as savings, thus the insurance premium can be understood as a compulsory saving, namely, minimum saving of Japanese households.

Kelsey, David

PD March 1988. **TI** Testing for Regret and Disappointment in Tax Compliance Decisions. **AU** Kelsey, David; Schepanski, Al. **AA** Kelsey: Churchill College, Cambridge. Schepanski: University of Iowa. **SR** University of Cambridge Economic Theory Discussion Paper: 124; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 26. **PR** $4.00, checks payable to University of Cambridge. **JE** 323, 921, 916. **KW** Taxes. Tax Theory.

AB This paper reports an experimental test of regret and disappointment theories. In the experiment we presented our subjects with a number of hypothetical tax compliance problems. We analyzed the results to see if they could be explained by regret or disappointment theory. In contrast, to most previous tests of these theories we found little evidence to support either theory.

PD August 1988. **TI** A Survey of Ignorance or Alternatives to Subjective Expected Utility. **AA** Churchill College, Cambridge and Australian National University. **SR** University of Cambridge Economic Theory Discussion Paper: 125; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 31. **PR** $4.00, checks payable to University of Cambridge. **JE** 026. **KW** Uncertainty. Utility Theory.

AB Between 1930 and 1960 economists were very interested in uncertainty. Recent years have fortunately seen a revival in the number of publications on this subject. These have included articles advocating that general economic analysis should pay more attention to the issues associated with uncertainty, see for instance, Lawson (1985) and formal developments in the theory of uncertainty itself, which will be the subject of this paper. There seems to be an increasing number of economists who take the view that there are important economic problems involving the kinds of

uncertainty which cannot usefully be described by a single probability distribution. The aim of this paper is to present a nontechnical account of some recent developments in the theory of uncertainty.

PD October 1988. **TI** A More General Measure of Risk Aversion when Utility is State-Dependent. **AU** Kelsey, David; Nordquist, Gerald L. **AA** Kelsey: Churchill College and Australian National University. Nordquist: University of Iowa. **SR** University of Cambridge Economic Theory Discussion Paper: 130; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 31. **PR** $4.00, checks payable to University of Cambridge. **JE** 022, 026. **KW** Insurance. Utility Model. Risk Aversion. State Dependent.
AB In this paper we propose a method for comparing risk aversion within the state-dependent utility model. This model is useful for analyzing problems such as health or life insurance. We extend the Arrow-Pratt measure of risk aversion to the case where utility is state-dependent. Our measure is a generalization of earlier methods of comparing risk aversion in this context, since it agrees with them where they are defined but can be applied to a much larger class of utility functions. We show how our analysis can be applied to a simple model of demand for insurance.

PD July 1989. **TI** Behind the Veil: A Survey of Theories of Choice under Ignorance and Uncertainty. **AU** Kelsey, David; Quiggin, John. **AA** Kelsey: The Australian National University, and Churchill College. Quiggin: University of Maryland. **SR** Australian National University Working Paper in Economics and Econometrics: 183; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 24. **PR** no charge. **JE** 026. **KW** Lotteries. Decision Theory. Risk. Uncertainty.
AB In this paper, Knight's distinction between risk and uncertainty, and its significance for economic analysis are examined. The paper consists of a survey of some recent developments on the theory of choice under uncertainty and some applications of these theories to problems for which Bayesian Decision Theory has not proved entirely satisfactory. Two problems are examined in detail. The first is that of risk-taking behavior with special emphasis on lotteries, and the second is that of constitutional design.

Kennedy, Michael

TI Long-Term Economic and Military Trends, 1950-2010. **AU** Wolf, Charles Jr.; Hildebrandt, Gregory G.; Kennedy, Michael; Henry, Donald P.; Terasawa, Katsuaki; Yeh, K. C.; Zycher, Benjamin; Bamezai, Anil; Hayashi, Toshiyo.

TI Long-Term Economic and Military Trends, 1950-2010. **AU** Wolf, Charles Jr.; Hildebrandt, Gregory G.; Kennedy, Michael; Henry, Donald P.; Terasawa, Katsuaki; Yeh, K. C.; Zycher, Benjamin; Bamezai, Anil; Hayashi, Toshiyo.

Kern, W.

PD February 1988. **TI** A Note on the Communication Complexity of Totally Unimodular Matrices. **AU** Kern, W.; Faigle, Ulrich. **AA** Kern: University of Cologne. Faigle: University of Enschede. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89.70; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 9. **PR** no charge. **JE** 213. **KW** Communication Complexity. Unimodular Matrix.
AB The communication complexity of a (0.1)-matrix A = (a(ij)) is the minimum number of bits that have to be exchanged between a player I who selects a row i and a player II who selects a column j in order to determine the value of a(ij). Mehlhorn and Schmidt (1982) established the lower bound, we show an upper bound. Our proof is based on Seymour's (1980) decomposition theory for totally unimodular matrices.

TI On the Performance of On-Line Algorithms for Partition Problems. **AU** Faigle, Ulrich; Kern, W.; Turan, G.

TI Note on the Convergence of Simulated Annealing Algorithms. **AU** Faigle, Ulrich; Kern, W.

Khan, B. Zorina

TI The Democratization of Invention During Early Industrialization: Evidence from the U.S., 1790-1846. **AU** Sokoloff, Kenneth L.; Khan, B. Zorina.

Khan, M. Ali

TI Cournot-Nash Equilibrium Distribution for Games with Differential Information. **AU** Rustichini, Aldo; Khan, M. Ali.

Kilgour, D. Marc

TI Sequential Arbitration Procedures. **AU** Brams, Steven J.; Kilgour, D. Marc; Weber, Shlomo.

Kim, Insu

PD October 1989. **TI** External Adjustment and the Optimal Demand for International Reserves. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/90; International Monetary Fund, Washington, DC 20431. **PG** 21. **PR** not available. **JE** 432, 431. **KW** Foreign Exchange. Currency Reserves.
AB This paper provides a theoretical underpinning for the major determinants of optimal reserve demand in the case where fundamental disequilibrium constitutes a key element governing reserve management. Emphasis is given to the role of reserves to smooth the process of economic adjustment by financing part of external disequilibrium, as well as to meet temporary random fluctuations in the excess demand for foreign exchange. The analysis incorporates this financing aspect of reserve holdings into a simple inventory model and discusses the optimal stock of reserves in the context of the optimal mix of adjustment and financing.

Kitson, Michael

PD May 1987. **TI** The Macroeconomics of Protectionism: A Case Study of Britain in the 1930's. **AU** Kitson, Michael; Solomou, Solomos. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 882; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 44. **PR** $4.00, checks payable to University of Cambridge. **JE** 431, 422, 421, 411. **KW** Free Trade. Tariffs. Industrial Sector. Foreign Markets. Protectionism.
AB Despite the UK's falling share of world manufactured trade and increasing pressure for protectionism, it is not until 1931/32 that a sterling and balance of payments crisis resulted

in the introduction of a general tariff on manufactured imports. The problem we address in this paper is to what extent was the policy shift to protectionism responsible for some of this cyclical and trend recovery of the economy. The paper is part of a larger study on the sectoral and macroeconomic impact of tariffs in Britain during this period. Here we focus on the macroeconomic aspect.

Kleit, Andrew N.

TI Terminal Railroad Revisited: Foreclosure of an Essential Facility or Simple Horizontal Monopoly?. **AU** Reiffen, David; Kleit, Andrew N.

TI Antitrust Policy for Declining Industries. **AU** Coate, Malcolm B.; Kleit, Andrew N.

Koh, Annie

PD July 1989. **TI** Synthetic Eurocurrency Interest Rate Futures Contracts: Theory and Evidence. **AU** Koh, Annie; Levich, Richard M. **AA** Koh: National University of Singapore. Levich: New York University. **SR** New York University Salomon Brothers Center Working Paper: 527; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 50. **PR** no charge. **JE** 441. **KW** Arbitrage. Futures Market. Hedging. Borrowing. Interest Rates.

AB In this paper, we develop a theoretical (arbitrage) pricing model for a Eurocurrency interest rate futures contract and measure its hedging effectiveness. This synthetic Eurocurrency interest rate futures contract is obtained by combining existing Eurodollar interest rate futures contracts with near term and far term currency futures contracts based on the covered interest rate parity relationship. In theory, the cash flows of the synthetic contract perfectly replicate the cash flows of a Eurocurrency interest rate futures contract. Our empirical results show that the synthetic contract are relatively efficient in hedging non-dollar interest rate risk and for the development of actual Eurocurrency interest rate futures markets.

Koray, Semih

PD January 1989. **TI** Pretend-But-Perform Regulation by Rehabilitation of Limit Pricing. **AU** Koray, Semih; Sertel, Murat R. **AA** Koray: Middle East Technical University. Sertel: University of Pennsylvania and Bogazici University. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-03; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 39. **PR** no charge. **JE** 611, 022. **KW** Regulation. Limit Pricing. Oligopoly. Cournot Equilibrium.

AB If limit pricing under perfect information fails because incumbent cannot present potential entrants with a credible deterrent threat about how it would react to entry, a simple institution of legally binding commitments can remedy the failure. We study "Pretend-but-Perform Regulation" (PPR), whereby incumbent and entrant each commits itself to exhibit a Cournot reaction consistent with a self-declared linear cost function where true costs and demand are all linear and commonly known with costs private. Incumbent declares pretended (constant) marginal cost first, as leader, followed by entrant's declaration, the Cournot equilibrium of the pretended firms then being enacted. This generally sets them off bragging about their cost-effectiveness, declaring and committing themselves to exaggeratedly low costs and high output reactions. Incumbent ends up deterring entrant - limit pricing - for certain parameters where this did not happen without PPR.

PD January 1989. **TI** Meta-Cournotic Equilibrium in Oligopoly: Positive or Regulatory Theory?. **AU** Koray, Semih; Sertel, Murat R. **AA** Koray: Middle East Technical University. Sertel: University of Pennsylvania and Bogazici University. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-04; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 18. **PR** no charge. **JE** 611, 022, 026. **KW** Oligopoly. Cournot Equilibrium. Regulation. Game Theory.

AB We compare two different approaches - positive and regulatory - to a new, meta-Cournotic equilibrium concept for oligopolies in this paper. We consider an oligopolistic setting in which the owners of firms specify maximands for their managers who then accordingly resolve the intermanagerial game so defined at its Cournot equilibrium on the industry floor. The owners choose the maximands for their managers having this in mind, and the owners' game itself is also resolved a la Cournot. We argue that this new meta-Cournotic equilibrium concept is useful and promising for regulatory purposes while there are serious a priori reasons of pure theory which render it unsuitable for purposes of positive economics at least in the manner intended by some authors recently. We identify and examine three problems with regarding the particular kind of meta-Cournotic equilibrium used by these authors as a positive equilibrium notion.

Korte, B.

TI Placement in VLSI-layout: Combining Partitioning, Global Routing and Timing Analysis. **AU** Garbers, J.; Korte, B.; Promel, Hans Jurgen; Schwietzke, E.; Steger, A.

Koujianou, Pinelopi

TI The Effects of Financial Deregulation on Consumption. **AU** Bayoymi, Tamim; Koujianou, Pinelopi.

Krieger, Reva

TI The Long and Short of Industrial Strength Pricing. **AU** Kan, William; Krieger, Reva; Tinsley, P.A.

Kristov, Lorenzo

PD January 1990. **TI** Pressure Groups and Redistribution. **AU** Kristov, Lorenzo; Lindert, Peter; McClelland, Robert. **AA** Kristov and Lindert: University of California, Davis. McClelland: Bureau of Labor Statistics. **SR** University of California at Davis Research Program in Applied Macro and Macro Policy: 66; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 59. **PR** no charge. **JE** 323, 025, 911. **KW** Pressure Groups. Income Redistribution. Public Choice. Political Economy. Lobbying. Taxes. Income Transfers.

AB The authors develop a model of political pressure group competition over income redistribution through government. Individuals' optimal political expenditures depend on their levels of caring about the subsidized and taxed groups, the sizes of those groups, and the side costs associated with the income

transfer. The aggregate spending of the pressure groups determines the ultimate level of the transfer. The model offers a coherent framework to explain the historic rise and slowdown of the redistributive state in terms of (i) political sympathies that shift as economic development alters the underlying income distribution, (ii) the interplay between intermobility of income classes and the extension of political voice, and (iii) reduced side costs associated with factor income taxes as compared with tariffs and excise taxes.

Krueger, Alan B.

PD September 1989. **TI** The Evolution of Unjust-Dismissal Legislation in the United States. **AA** Princeton University and National Bureau of Economic Research. **SR** Princeton Industrial Relations Section Working Paper: 258; Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08544-2098. **PG** 37. **PR** $1.50. **JE** 822, 833, 916. **KW** Employment. Transaction Costs. Liability. Legislation. Property Rights.

AB In the last decade, state courts in many areas of the United States have ruled in favor of employees alleging they were improperly dismissed. Many economists have contended that any judicial or legislative departure from the employment-at-will doctrine is regressive and inefficient because it restricts employment flexibility and freedom of contract. This paper advances an evolutionary theory of unjust-dismissal legislation in which employer groups eventually support unjust-dismissal legislation in response to the threat of large and variable damage awards imposed by the judicial system. Legislation is sought to clearly define property rights and to limit employer liability. In comparison to the common law, the unjust-dismissal laws that have been proposed are likely to result in smaller awards, reduce uncertainty, resolve disputes rapidly, and reduce legal and other transactions costs.

Kuester, Kathleen A.

PD November 1989. **TI** Bank Equity Values, Bank Risk, and the Implied Market Value of Banks' Assets, Liabilities and Deposit Insurance. **AU** Kuester, Kathleen A.; O'Brien, James M. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 98; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash., DC 20551. **PG** 35. **PR** no charge. **JE** 312. **KW** Commercial Banks. Deposit Insurance. Banking. Portfolio.

AB This paper models the stock market's valuation of banks' assets and liabilities and the value to bank stockholders of the deposit insurance option. It estimates these market valuations for a sample of 234 large banks and examines their sensitivity to bank portfolio characteristics that indicate potential default risk. The average value of deposit insurance is found to vary over three periods and two estimation methods from 0.5 cents to 2.0 cents. Several types of loans and measures of loan performance are shown to have a significant effect on the values of bank assets and deposit insurance.

Kupiec, Paul H.

PD November 1989. **TI** Futures Margins and Stock Price Volatility: Is There Any Link?. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 95; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash., DC 20551. **PG** 25. **PR** no charge. **JE** 313, 522, 521. **KW** Stock Futures. Margin Requirements. Futures Market. Capital Markets.

AB This paper investigates the issue of futures market leverage and its effects on cash market volatility. We review the literature on margins and investigate the statistical relationship between the initial margin requirements on the S&P 500 index-futures contract and the S&P 500 cash market volatility. The results do not support the hypothesis that low initial futures margins increase volatility in the cash market. Rather, the results indicate that periods of higher cash market volatility are associated with higher initial margin rates in the index-futures market. This association is consistent with the prudential behavior of the futures exchange's margin committee and empirical findings that indicate that cash market volatility tends to be larger during periods of negative market returns.

Laffont, J. J.

PD February 1989. **TI** The Efficient Market Hypothesis and Insider Trading on the Stock Market. **AU** Laffont, J. J.; Maskin, E. **AA** Laffont: Harvard University and GREMAQ. Maskin: St. John's College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 134; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 34. **PR** $4.00, checks payable to University of Cambridge. **JE** 313, 311. **KW** Stock Market. Asset Return. Private Information. Efficient Market Hypothesis.

AB We study the behavior of a large trader with private information about the mean of an asset with a risky return in the stock market. We argue that, if the variability of the return is not too great, typically the trader will find it desirable to ensure that market prices do not reveal this information i.e., that a "pooling" equilibrium arises. Such an equilibrium has the advantage of avoiding the incentive constraints that apply in "separating" equilibria, when information can be inferred from prices. Thus the Efficient Market Hypothesis may well fail if there is imperfect competition. Despite the uninformativeness of prices, the other (competitive) traders are also better off in the pooling equilibrium than in any separating equilibrium, again assuming limited variability.

Lambelet, Jean-Christian

PD October 1989. **TI** Loyers et Taux Hypothecaire: Analyse et Resultats Empiriques. **AU** Lambelet, Jean-Christian; Zimmerman, Christian Michel. **AA** Universite de Lausanne. **SR** University de Lausanne Cahiers de Recherches Economiques: 8907; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. **PG** 25. **PR** no charge. **JE** 315, 932. **KW** Housing Rents. Mortgage Rate. Mortgages.

AB Most mortgages in Switzerland are of the variable-rate type, the question being: Should rents be adapted when mortgage rates change? Current Swiss law says they can but must not. This is theoretically justified: interest charges are capital costs which are variable in the long run, so that the relative users' price of capital-intensive goods (such as housing) should increase ceteris paribus with the real price of capital. Econometrically, the long-run elasticity of real rents with respect to the relevant mortgage rate is found to be about 0.8, with the vacancy rate as an additional explanatory variable.

Landesmann, Michael

PD February 1988. **TI** The Consequences of Mrs. Thatcher for UK Manufacturing Exports. **AU** Landesmann, Michael; Snell, Andrew. **AA** Landesmann: University of Cambridge. Snell: University of Edinburgh. **SR** University of Cambridge Department of Applied Economics Working Paper: 883; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 36. **PR** $4.00, checks payable to University of Cambridge. **JE** 122, 133, 132. **KW** Manufacturing. Exports. England.

AB This article sets out to study whether the dramatic events which took place in the U.K. economy since 1979 can be shown to have had any effects on certain crucial parameters which determine the export performance of the U.K. manufacturing sector. A number of export models are examined over the post 1979 period and all reveal a certain amount of systematic parameter variation. In particular, estimates of the world income elasticity of demand for U.K. manufacturing exports show an upward drift.

Landskroner, Yoram

TI Tailing the Hedge: Why and How. **AU** Figlewski, Stephen; Landskroner, Yoram; Silber, William L.

Lang, Larry H. P.

TI Strategic Insider Trading Around Dividend Announcements: Theory and Evidence. **AU** John, Kose; Lang, Larry H. P.

Laroque, G.

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

TI On the Behavior of Commodity Prices. **AU** Deaton, A.; Laroque, G.

PD September 1989. **TI** La Place des Stocks dans les Fluctuations Conjoncturelles Cluelques Elements de Statistique Descriptive. **AU** Laroque, G.; Gregoir, S. **AA** INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8908; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 31. **PR** no charge. **JE** 131, 229, 522, 122. **KW** Inventories. Fluctuations. Economic Shocks.

AB This paper tries to analyze the role played by inventories in the propagation of economic shocks using aggregate data for OECD countries and panel data from a sample of French firms. The chosen approach is purely descriptive. We obtain different results on the one hand, according to the measure we consider for the aggregate data, on the other, between the aggregate data and the panel data, which does not allow a conclusive conclusion.

Larrain, Felipe

TI The Basic Macroeconomics of Debt Swaps. **AU** Velasco, Andres; Larrain, Felipe.

Laskar, Daniel

PD December 1984. **TI** International Cooperation and Exchange Rate Stabilization. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8506; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 23. **PR** 20 ff. **JE** 411, 422, 431. **KW** Exchange Rate. Nash Equilibrium. Trade Theory. Commercial Policy.

AB We consider a two country world where policymakers of each country have at their disposal one policy instrument and want to reduce the fluctuations of two variables: an internal variable, such as domestic output or price, on the one hand, and the exchange rate, on the other hand. Using a quite general symmetric reduced form model, we show that at the noncooperative Nash equilibrium policy makers do not give enough weight to the exchange rate stabilization objective and, therefore, that the exchange rate fluctuates more than what it would at any Pareto optimum. The magnitude of the gap between the two types of solutions increases when we go from a negative to a positive transmission mechanism.

PD December 1988. **TI** Capital Mobility and International Liquidity in Alternative Fixed Exchange Rate Systems. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8904; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 26. **PR** 20 ff. **JE** 431, 432, 441, 411. **KW** Exchange Rates. Capital Mobility. International Reserves. European Monetary System.

AB In a two country world in which the amount of international liquidity is inadequate, we study the effect of the degree of capital mobility on the noncooperative equilibrium of the game between the monetary authorities of these countries under two kinds of fixed exchange rate systems. One is symmetric relatively to the countries involved and is based upon some external international reserve money (the Ecu in the case of Europe); the other system is asymmetric because one of the countries issue the international reserve money (the Deutsche-Mark in the case of Europe). We show, on the one hand, that an asymmetric system is better than a symmetric system; and, on the other hand, that a greater capital mobility increases the inefficiency of the symmetric system while on the contrary it decreases the inefficiency of the asymmetric system.

Lau, Lawrence J.

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

TI An Analysis of Postwar Consumption and Saving: Part I The Model and Aggregation. **AU** Boskin, Michael J.; Lau, Lawrence J.

TI Firm-Level Productivity and Management Influence: A Comparison of U.S. and Japanese Automobile Producers. **AU** Lieberman, Marvin B.; Lau, Lawrence J.; Williams, Mark D.

Lee, Kevin

TI Institutional Investment, Mergers and the Market for Corporate Control. **AU** Cosh, A. D.; Hughes, A.; Lee, Kevin; Singh, Ajit.

PD November 1988. **TI** Labour Market Adjustment in a Disaggregated Model of the UK Supply Side. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 8810; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 60. **PR** $4.00, checks payable to University of Cambridge. **JE** 821, 822, 023. **KW** Labor Market. Government Policy. Macroeconomics.

AB This paper provides an empirical study of the UK supply side designed to investigate the processes involved in labor market adjustment, and, in particular, the importance of the interactions between different sectors of the economy in determining the direction and speed of adjustment. It is the contention of the paper that the dynamics of the supply side can only be adequately modeled through direct examination of changes in structure. To this end, a model of the UK supply side is estimated based around 38 industries which cover the whole economy excluding government sector services. The model consists of employment, price, wage, and output demand equations for each industry, plus a series of subsidiary equations to capture the inter-relations between industries.

PD February 1989. **TI** Aggregation Bias in Labour Demand Equations for the UK Economy. **AU** Lee, Kevin; Pesaran, M. H.; Pierse, R. G. **AA** Lee and Pierse: University of Cambridge. Pesaran: Trinity College and University of California, Los Angeles. **SR** University of Cambridge Department of Applied Economics Working Paper: 8904; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 32. **PR** $4.00, checks payable to University of Cambridge. **JE** 824, 821, 023. **KW** Labor Demand. Technology. Wage Elasticity. Aggregation Bias.
AB This paper applies the methods developed in Pesaran, Pierse and Kumar (1989) and Lee, Pesaran and Pierse (1989), to examine the effect of aggregation on the estimation of labor demand equations for the UK. The equations in this paper differ from those in the previous papers in allowing more complicated dynamics and employing a measure of embodied technological change based on cumulated gross investment. The results indicate a wide diversity in the responsiveness of labor demand to different influences across industries, and provide significant evidence of aggregation bias in the estimates of the long-run real wage elasticity.

PD March 1989. **TI** Testing for Aggregation Bias in Linear Models. **AU** Lee, Kevin; Pesaran, M. H.; Pierse, R. G. **AA** Lee and Pierse: University of Cambridge. Pesaran: Trinity College. **SR** University of Cambridge Department of Applied Economics Working Paper: 8903; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 27. **PR** $4.00, checks payable to University of Cambridge. **JE** 821, 212, 211. **KW** Aggregation Bias. Employment. Misspecification.
AB This paper discusses alternative methods of testing for aggregation bias and proposes direct tests of the discrepancy of the macro parameters from the average of the corresponding micro parameters, and derives tests of aggregation bias in the general case where the parameters of interest may possibly be nonlinear functions of the micro parameters. The paper also develops a Durbin-Hausman type misspecification test of the disaggregate model. These tests are then applied to disaggregate and aggregate specifications of the employment functions analyzed in Pesaran, Pierse and Kumar (Econometric analysis of aggregation in the context of linear prediction models, Econometrica, forthcoming).

Leeper, Eric M.

PD August 1989. **TI** Policy Rules, Information, and Fiscal Effects in a "Ricardian" Model. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 360; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 44. **PR** no charge. **JE** 311, 321, 323, 322. **KW** Monetary Policy. Fiscal Policy. Budget Deficits. Ricardian Equivalence. Inflation. Tax Policy.
AB According to conventional wisdom, if deficits are inflationary then current deficits should predict sudsequent movements in money growth. This paper uses a general equilibrium model fit to data to: (1) explore the policy behavior underlying this accepted viewpoint; (2) examine alternative equilibrium deficit policies ranging from exclusive reliance on direct lump-sum taxes to a mix of direct and inflation taxes; and (3) evaluate the empirical trade-offs implied by the various financing schemes. The results suggest that reduced form analyses of whether "deficits matter" can lead to seriously misleading conclusions by mistakenly attributing fiscal effects to monetary policy.

Lehrer, Ehud

PD June 1989. **TI** Discounting Versus Undiscounting in Dynamic Programming. **AU** Lehrer, Ehud; Monderer, Dov. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 837; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 19. **PR** no charge. **JE** 213. **KW** Dynamic Programming.
AB We explore the various relationships between the limits of the values of the discounted, or the finitely truncated dynamic programming problems and the values of the undiscounted problems.

TI The Value of Information an Axiomatic Approach. **AU** Gilboa, Itzhak; Lehrer, Ehud.

Leibowitz, Arleen

PD July 1988. **TI** The Consequences for Women of the Availability and Affordability of Child Care. **AU** Leibowitz, Arleen; Waite, Linda J. **AA** Rand Corporation. **SR** Rand Paper: P-7525; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 23. **PR** not available. **JE** 921, 914, 833. **KW** Child Care. Labor Supply. Females. Fringe Benefits.
AB This paper was prepared to provide background material for the National Research Council's Committee on Child Care. It focuses on the effects for women of the availability and affordability of child care, concentrating especially on effects on women's employment and earnings. The paper discusses the implications of raising the wages of child care workers, of the reduced availability of free care by family members, and of the wages of women workers. It considers the role of employers as providers of child care subsidies, perhaps as an employee benefit, and the subsidization of child care costs, especially through the federal tax code.

Levich, Richard M.

PD June 1989. **TI** The Euromarkets After 1992. **AA** New York University. **SR** National Bureau of Economic Research Working Paper: 3003; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 46. **PR** $2.00. **JE** 431, 441, 423, 411. **KW** Capital Mobility. Regulation. Euromarkets. Currency.

Exchange Markets.
AB Over the last three decades, differential national regulation in conjunction with increasing capital mobility has given rise to tremendous growth in the Eurocurrency markets. In this paper, we analyze whether the announced plans of the European Commision to remove barriers to capital flows (in July 1990) and to harmonize other financial regulations (by the end of 1992) will have a major effect on the Euromarkets.

PD June 1989. **TI** The Euromarkets After 1992. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 523; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 46. **PR** no charge. **JE** 441, 421, 323. **KW** Capital Mobility. Regulation. Trade Development. Euromarket.
AB Over the last three decades, differential national regulation in conjunction with increasing capital mobility has given rise to tremendous growth in the Eurocurrency markets. In this paper, we analyze whether the announced plans of the European Commission to remove barriers to capital flows (in July 1990) and to harmonize other financial regulations (by the end of 1992) will have a major effect on the Euromarkets. The analysis in this paper revolves around the concept of the Net Regulatory Burden (NRB). Three variables will play a crucial role for the development of the Euromarkets after 1992. These are (1) reserve requirements on bank deposits, (2) taxation of residents and non-residents on interest income, dividends and capital gains, and (3) disclosure of interest and dividends to tax authorities.

TI Synthetic Eurocurrency Interest Rate Futures Contracts: Theory and Evidence. **AU** Koh, Annie; Levich, Richard M.

Levine, David K.

TI Indeterminacy in Applied Intertemporal General Equilibrium Models. **AU** Kehoe, Timothy J.; Levine, David K.

TI Steady States and Determinacy of Equilibria in Economies with Infinitely Lived Agents. **AU** Kehoe, Timothy J.; Levine, David K.; Romer, Paul M.

TI Determinacy of Equilibrium in Large-Square Economies. **AU** Kehoe, Timothy J.; Levine, David K.; Mas-Colell, Andrew; Zame, William R.

Levine, Phillip B.

PD September 1989. **TI** Testing Search Theory with Reemployment Bonus Experiments: Cross-Validation of Results from New Jersey and Illinois. **AA** Princeton University. **SR** Princeton Industrial Relations Section Working Paper: 257; Industrial Relations Section, Department of Economics, Princeton University, Princeton NJ 08544-2098. **PG** 52. **PR** $2.00. **JE** 821, 824, 132. **KW** Search Theory. Unemployment Insurance. Wages.
AB This paper assesses the ability of a simple search-theoretic model to explain the results of two controlled reemployment bonus experiments. The availability of two independent experiments with substantially different treatments allows for a rigorous test of the model. Parameters of the model are estimated by minimizing the distance between the observed and predicted aggregate response in each experiment, then cross-validated using the observed and predicted treatment response from the other experiment. The model is unable to predict an effect as large as that observed in one of the experiments. In addition, the model cannot explain the degree of individual-specific wage variability found in the data.

Levinsohn, James A.

PD April 1989. **TI** A Simple, Consistent Estimator for Disturbance Components in Financial Models. **AU** Levinsohn, James A.; MacKie-Mason, Jeffrey K. **AA** University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-16; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 15. **PR** no charge. **JE** 313, 311. **KW** Financial Markets. Asset Returns. Equity Returns.
AB Many recent papers have estimated components of the disturbance term in the "market model" of equity returns. In particular, several studies of regulatory changes and other policy events have decomposed the event effects in order to allow for heterogeneity across firms. In this paper we demonstrate that the econometric method applied in some papers yields biased and inconsistent estimates of the model parameters. We demonstrate the consistency of a simple and easily implemented alternative method.

TI Distance, Demand and Oligopoly Pricing. **AU** Feenstra, Robert C.; Levinsohn, James A.

Levy, Dominique

TI The Rise of Profitability During World War II. **AU** Dumenil, Gerard; Glick, Mark; Levy, Dominique.

TI The Rationality of Adjustment Behavior in a Model of Monopolistic Competition. **AU** Dumenil, Gerard; Levy, Dominique.

TI Micro Adjustment Behavior and Macro Stability. **AU** Dumenil, Gerard; Levy, Dominique.

TI The Classical Legacy and Beyond. **AU** Dumenil, Gerard; Levy, Dominique.

Lewis, Tracy R.

PD November 1989. **TI** On the Boundaries of the Firm: Self Provision vs. Subcontracting. **AU** Lewis, Tracy R.; Sappington, David E. M. **AA** Lewis: University of California at Davis. Sappington: Bellcore. **SR** University of California at Davis Economics Department Working Paper: 348; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 37. **PR** no charge. **JE** 613, 611, 621, 511. **KW** Investment. Commitment. Decision Theory. Technology.
AB We examine a firm's decision to either subcontract for or self produce an essential input. We demonstrate how this decision is affected by technological change in the industry. In general, cost reducing technological change leads to more self provision. The firm's calculus is shown to depend on whether the subcontractor's skills are idiosyncratic or transferable. In the latter case, technological progress can even be detrimental to the firm.

TI Designing Policies to Open Trade. **AU** Feenstra Robert C.; Lewis, Tracy R.; McMillan, John.

Lieberman, Marvin B.

PD June 1989. **TI** Firm-Level Productivity and Management Influence: A Comparison of U.S. and Japanese Automobile Producers. **AU** Lieberman, Marvin B.; Lau, Lawrence J.; Williams, Mark D. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 164; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 34. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 631, 226, 825, 512, 621. **KW** Automobiles. Manufacturing. Labor Force. Management. Productivity.

AB This study compares the productivity of six major U.S. and Japanese motor vehicle manufacturers--General Motors, Ford, Chrysler, Toyota, Nissan and Mazda--from the early 1950's through 1987. Techniques of productivity measurement, conventionally applied at the level of industries or national economies, are adapted for the analysis of individual firms. Several potential determinants of growth in productivity are evaluated, including economies of scale, adoption of "just-in-time" manufacturing, and changes in top management.

Lilienthal, Peter

PD February 1988. **TI** Discussion Summary Trinational Energy Policy Workshop. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 150; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 17. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 723, 421, 422. **KW** Electricity. Free Trade. Natural Gas. Oil. Petroleum. Trade Agreement. Energy Policy.

AB The Trinational Energy Policy workshop brings together individuals from Canada, Mexico, and the United States to discuss energy policy issues relevant to the three countries and to analyze the issues. Discussion this year was organized into three broad areas: domestic policy issues, electricity trade, and hydrocarbon issues. Particular emphasis was placed upon probable impacts of the not-yet-then ratified free trade agreement between Canada and the United States. This paper summarizes the discussion.

Lin, Justin Yifu

PD December 1989. **TI** Rural Reforms and Agricultural Productivity Growth in China. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 576; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 54. **PR** $2.50. **JE** 713, 052, 121, 226. **KW** Agriculture Policy. China. Rural Reform. Agriculture.

AB The rural reforms, starting in 1979, resulted in a rapid output growth in agriculture up to 1984. This paper employs provincial level panel data covering 1965 to 1987 to evaluate empirically the relative importance of various components of rural reforms in agricultural productivity growth. There was 42.2 percent output growth in cropping sector in 1978-1984. It is found that the productivity growth due to reforms explains 43.6 percent of the output growth. Among the productivity growth, 94 percent can be attributed to the change in farming institution from the production team system to the household responsibility system. The other 6 percent is attributable to the combined effects of increases in market prices, and changes in cropping patterns and cropping intensity.

PD December 1989. **TI** Inhibition of Factor Markets, Institutional Reform and Induced Technological Choice in Chinese Agriculture: Theory and Empirical Evidence. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 575; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 28. **PR** $2.50. **JE** 621, 052, 121, 713. **KW** Agriculture. Factor Markets.

AB This paper provides a model of technological choice in an economy where exchanges in primary factor markets, namely land and labor markets, are prohibited, and a method to analyze the impacts of institutional change on technological choice. Empirical data on demand for tractor and chemical fertilizer in China are employed to test several hypotheses derived from the theoretical model. The theory implies that the pattern of technological choice in an economy where primary factor markets are prohibited is similar to that in a market economy. The empirical evidence is consistent with the implications of the model. While recent change in China's farming institution from the old collective system to the household-based system has a positive effect on the incentive for adopting modern inputs, this institutional change also has a negative effect on the demand for modern technology probably due to the disruption in the services of the supply system.

PD January 1990. **TI** Collectivization and China's Agricultural Crisis in 1959-1961. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 579; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 42. **PR** $2.50. **JE** 713, 027, 052. **KW** Agricultural Policy. Agriculture. Socialism. China.

AB The agricultural crisis in 1959-1961, after the initial success of the collectivization movement, resulted in 30 million extra deaths in China. A game theory hypothesis is proposed as the main cause of this catastrophe. It is argued that, due to the difficulty in supervising agricultural work, the success of an agricultural collective depends on a self-enforcing contract, in which each one promises to discipline himself. However, a self-enforcing contract can only be sustained in a repeated game. In the fall of 1958, the collectivization was changed from a voluntary movement to a compulsory movement. The nature of the collectivization was thus changed from a repeated game to a one time game. As a result, the self-enforcing contract could not be sustained and agricultural productivity collapsed.

Lindbeck, Assar

PD July 1989. **TI** Macroeconomic Implications of Insider Power. **AU** Lindbeck, Assar; Snower, Dennis J. **AA** Lindbeck: University of Stockholm. Snower: Birkbeck College. **SR** Centre for Economic Policy Research Discussion Paper: 331; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 14. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 831, 832, 822, 821. **KW** Wages. Unions. Employment. Government Policy. Hysteresis. Negotiations. Collective Bargaining.

AB The paper constructs a simple macroeconomic model that contains a labor market in which insiders have power in wage negotiations. Wage and employment decisions are assumed to be made before business conditions are known; thus these decisions depend on both the hiring costs and expected dismissal costs. The paper analyzes the short and long-term implications for the effectiveness of various government policies on production, employment, and pricing. Hysteresis is shown to be a special case in a continuum of symmetric long-

term policy effects. A rationale for asymmetric policy effects is presented as well.

PD August 1989. **TI** Demand and Supply Side Policies and Unemployment: Policy Implications of the Insider-Outsider Approach. **AU** Lindbeck, Assar; Snower, Dennis J. **AA** Lindbeck: University of Stockholm. Snower: Birkbeck College. **SR** Centre for Economic Policy Research Discussion Paper: 329; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 29. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 822, 831, 824, 825. **KW** Government Policy. Wages. Employment. Labor Productivity. Unions.
AB The paper analyzes a variety of government policies that can stimulate employment when unemployment is generated through the conflicting of interest between insiders and outsiders. It also provides guidelines for identifying policies that may be ineffective. We show how supply side policies can stimulate employment by raising worker productivity or reducing labor costs. Our analysis indicates that when wages and prices are flexible, product demand policies have no significant effect on employment unless these policies stimulate labor productivity, the entry of firms, capital utilization or investment.

Lindert, Peter

TI Pressure Groups and Redistribution. **AU** Kristov, Lorenzo; Lindert, Peter; McClelland, Robert.

Linhart, Robert

PD February 1989. **TI** The Debt, the Worker and the Peasant in Brazil. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8903; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 11. **PR** 20 ff. **JE** 443, 441, 121, 112. **KW** Developing Countries. Brazil. Public Debt. Capital Market.
AB This paper presents the conditions of the development of Brazil's indebtment. It insists on the fact that the debt determines a vicious circle, in which the industrial are led as well as the agrarian sector. Inequalities are developing. Contradictions are obvious. The hardness of the conditions created by the necessities of the refunding of the debt make it impossible to use efficiently the equipments that were bought through the debt. In conclusion, the paper states the latest proposals regarding developing countries' debt and the capital market.

Lipietz, Alain

TI The Rise and Fall of the Golden Age. **AU** Glyn, Andrew; Hughes Alan; Lipietz, Alain; Singh, Ajit.

PD September 1989. **TI** De L'Althusserisme a la "Theorie de la Regulation". **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8920; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 38. **PR** 20 ff. **JE** 052, 031. **KW** Marxism. Regulation. Communism.
AB The field of works known as "the French Regulation School" is much indebted to a forgotten origin: Louis Althusser's school. This paper summarizes the main thesis of some exponents of this school (Balibar, Bettelheim, Poultantzas). It emphasizes their shortcomings, and the regulationists attempts to overcome them.

Lo, Andrew W.

PD June 1989. **TI** Data-Snooping Biases in Tests of Financial Asset Pricing Models. **AU** Lo, Andrew W.; MacKinlay, Craig A. **AA** Lo: Massachusetts Institute of Technology. MacKinlay: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 3001; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** $2.00. **JE** 313, 311, 211. **KW** Asset Pricing Models. Portfolios. Securities. Capital Markets. Test Statistics.
AB We investigate the extent to which tests of financial asset pricing models may be biased by using properties of the data to construct the test statistics. Specifically, we focus on tests using returns to portfolios of common stock where portfolios are constructed by sorting on some empirically motivated characteristic of the securities such as market value of equity. We present both analytical calculations and Monte Carlo simulations that show the effects of this type of data-snooping to be substantial. Even when the sorting characteristic is only marginally correlated with individual security statistics, 5 percent tests based on sorted portfolio returns may reject with probability one under the null hypothesis. This bias is shown to worsen as the number of securities increases given a fixed number of portfolios, and as the number of portfolios decreases given a fixed number of securities.

Loretan, Mico

TI The Durbin-Watson Ratio under Infinite Variance Errors. **AU** Phillips, Peter C. B.; Loretan, Mico.

TI Estimating Long Run Economic Equilibria. **AU** Phillips, Peter C. B.; Loretan, Mico.

Lothian, James R.

PD November 1989. **TI** Buffer Stock Models of the Demand for Money and the Conduct of Monetary Policy. **AU** Lothian, James R.; Darby, Michael R.; Tindall, Michael. **AA** Lothian: New York University. Darby: U.S. Department of Commerce. Tindall: Discount Corporation of New York. **SR** New York University Salomon Brothers Center Working Paper: 541; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 31. **PR** no charge. **JE** 134, 227. **KW** Inflation. Money Demand. Prices. Money.
AB We use updated U.S. data to replicate the quarterly price equations estimated by Arthur Gandolfi and James Lothian and by Michael Darby and Alan Stockman in "The International Transmission of Inflation." These equations were based on buffer stock money demand functions and were originally estimated for the U.S. and seven other countries over the period 1957-1976. In this paper we confine ourselves to an examination of the American case. In our new estimations we use two alternative money definitions -- M1A and (new) M2.

PD November 1989. **TI** A Century Plus of Yen Exchange Rate Behaviour. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 540; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 43. **PR** no charge. **JE** 431, 227, 123. **KW** Exchange Rates. Prices.
AB Examination of over a century's worth of annual data for

Japan, the United States, the United Kingdom and France reveals a marked tendency for real exchange rates to return to their (measured) equilibrium values. The hypothesis that exchange-rate-adjusted price levels in these countries are not cointegrated is almost always rejected. Similar unit root tests much more often than not reject the hypothesis of non-stationarity (or non-trend-stationary) of real exchange rates. Analysis of earlier periods of floating yen rates, particularly in the latter decades of the nineteenth century, points to an important link between monetary conditions and real exchange rate variability.

Lowrey, Barbara R.

TI The U.S. and U.K. Activities of Japanese Banks: 1980-1988. **AU** Terrell, Henry S.; Dohner, Robert S.; Lowrey, Barbara R.

Machin, Stephen J.

PD October 1988. **TI** Unions and the Capture of Economic Rents: An Investigation Using British Firm Level Data. **AA** University College London. **SR** University College London Discussion Paper: 89-02; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 31. **PR** 2.00 pounds. **JE** 831, 821, 611. **KW** Trade Unions. Market Power. Unions. Economic Rents. Profits.

AB This paper considers the relationship between unions and profitability in a sample of large British firms in 1984 and 1985. The main finding is that unionized firms have significantly lower profit margins than otherwise comparable non-union firms. This highlights the importance of allowing a role for union presence in Industrial Organization studies of the determinants of financial performance. Tests of whether unions are able to influence profit margins by more when they operate in firms which can exert some degree of product market power are also conducted. The ability of unions to capture economic rents is seen to be significantly greater in firms which have a high market share and/or operate in highly unionized industries.

PD August 1989. **TI** The Effects of Unions on Organizational Change, Investment and Employment: Evidence from WIRS. **AU** Machin, Stephen J.; Wadhwani, Sushil B. **AA** Machin: University College London. Wadhwani: London School of Economics. **SR** University College London Discussion Paper: 89-14; Department of Economics, University College London, Gower Street, London, WC1E 6BT. **PG** 58. **PR** 2.00 pounds. **JE** 831, 522, 511. **KW** Trade Unions. Business Investment. Employment. Industrial Organization.

AB This paper investigates the association between unionism and organizational change, investment and employment using British data over 1980-1984. It finds that: (i) Union plants were more likely to have experienced organizational change. (ii) Unionism is also positively correlated with investment, though this association disappears once one controls for organizational change and other relevant variables. (iii) The often-cited negative relationship between unionism and employment growth may well arise from the differential extent to which restrictive practices were removed in union plants. Also, the negative relationship might not, in any case, be present among larger plants.

MacKie-Mason, Jeffrey K.

PD June 1988. **TI** Nonlinear Taxation of Risky Assets and Investment, With Application to Mining. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 2631; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** $2.00. **JE** 522, 323, 632, 511. **KW** Taxes. Capital Assets. Business Investment. Income Taxes.

AB An intertemporal capital asset valuation approach is applied to analyzing the effects of nonlinear taxes on asset values and optimal investment decisions. The method is quite general, and is illustrated both analytically and numerically. The paper studies the effects of nonlinearities in the corporate income tax, including the percentage depletion allowance, on mine values and investment decisions. Although the tax policies are found to have the expected effects on asset values, the effects on investment decisions are sometimes perverse. An increase in the income tax rate may encourage investment; an increase in the depletion allowance subsidy may discourage investment.

PD June 1988. **TI** Do Taxes Affect Corporate Financing Decisions?. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 2632; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $2.00. **JE** 521, 522, 511, 323. **KW** Tax Policy. Corporations. Business Investment. Corporate Taxes.

AB A new empirical method and data set are used to study the effects of tax policy on corporate financing choices. Clear evidence emerges that non-debt tax shields "crowd out" interest deductibility, thus decreasing the desirability of debt issues at the margin. Previous studies which failed to find tax effects examined debt-equity ratios rather than individual, well-specified financing choices. This paper demonstrates the importance of controlling for confounding effects which other papers ignored. Results on other (asymmetric information) effects on financing decisions are presented.

TI A Simple, Consistent Estimator for Disturbance Components in Financial Models. **AU** Levinsohn, James A.; MacKie-Mason, Jeffrey K.

MacKinlay, Craig A.

TI Data-Snooping Biases in Tests of Financial Asset Pricing Models. **AU** Lo, Andrew W.; MacKinlay, Craig A.

MacLeod, W. Bentley

TI Renegotiation Proof Equilibria in Continuous Time Games. **AU** Bergin, James; MacLeod, W. Bentley.

PD September 1989. **TI** Efficient Specific Investments, Incomplete Contracts and the Role of Market Alternatives. **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: 8911; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 42. **PR** no charge. **JE** 723, 632, 522. **KW** Contracts. Coal. Energy. Investments.

AB This paper investigates conditions under which market contracting can, despite contractual incompleteness and renegotiation, ensure efficient investment in relationship specific assets when trade is a continuing process (as in employer-employee and long-term supply relationships), not the one-off event studied previously. It considers two cases, one with investments by only one party, the other with

investments by both parties. The latter suggests an interpretation of Joskow's observation of long-term coal contracts. The analysis has implications for the ownership of assets, for which party should undertake specific investments, and for the design of damage measures for breach of contract.

Madan, Dilip B.

TI A "Gormanesque" Approach to the Solution of Intertemporal Consumption. **AU** Cooper, Russel J.; Madan, Dilip B.; McLaren, Keith R.

Magill, Michael

TI Lecture Notes in Incomplete Markets II. **AU** Geanakoplos, John; Magill, Michael; Shafer, Wayne.

Mailath, George J.

PD January 1989. **TI** Collusion in Second Price Auctions with Heterogeneous Bidders. **AU** Mailath, George J.; Zemsky, Peter. **AA** Mailath: University of Pennsylvania. Zemsky: Board of Governors of the Federal Reserve System. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-02; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 23. **PR** no charge. **JE** 022. **KW** Collusion. Bidding. Auctions. Private Information.

AB It is shown that efficient collusion by any subset of bidders in second price private value auctions is possible, even when the bidders are heterogeneous. A feature of more technical interest is the mechanism characterization in an environment in which the private information of agents does not enter in a linear (or even piecewise linear) manner.

Mairesse, Jacques

PD June 1988. **TI** Heterogeneity in Panel Data: Are There Stable Production Functions?. **AU** Mairesse, Jacques; Griliches, Zvi. **AA** Mairesse: Institut National de la Statistique et des Etudes Economiques. Griliches: National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 2619; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 40. **PR** $2.00. **JE** 631. **KW** Production Functions. Manufacturing.

AB We estimate separate production functions for approximately 450 manufacturing firms in France and in the United States and for 850 manufacturing firms in Japan, covering the 13 year period 1967-1979, and focus on the wide dispersion in the estimated slope coefficients in all three countries. The main question asked is: Is this dispersion real? Could it be just a reflection of sampling variability or is it an indication of real heterogeneity? We estimate the "true" dispersion using three different approaches: Maximum likelihood, regressions of squares and cross-products of residuals, and Swamy's "residual" method, and try to interpret the somewhat different answers which emerge.

Makowski, Louis

PD October 1989. **TI** The Possibility of Efficient Mechanisms for Trading an Indivisible Object. **AU** Makowski, Louis; Mezzetti, Claudio. **AA** University of California, Davis. **SR** University of California at Davis Economics Department Working Paper: 344; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 35. **PR** no charge. **JE** 026. **KW** Bayesian Mechanisms. Efficiency. Second Price Auctions. Trading. Bidding. Auctions.

AB We study a trading problem in which the seller of an indivisible object faces a small number of potential buyers. Each trader's valuation is privately known and regarded by the others as an independent random variable. We characterize the conditions under which it is possible to design an individually rational, ex post efficient, Bayesian mechanism for trading the object. We show how to construct families of environments satisfying these conditions. In addition, we present a class of simple bidding games that efficiently transfer the object whenever it is possible to do so; and we show that any mechanism that leads to efficient trading is equivalent, in expected returns, to a member of this class.

Malcomson, James M.

TI Insiders, Outsiders, and Seniority Employment Rules. **AU** Frank, Jeff; Malcomson, James M.

TI Efficient Specific Investments, Incomplete Contracts and the Role of Market Alternatives. **AU** MacLeod, W. Bentley; Malcomson, James M.

Malgrange, Pierre

TI Formalizing Long Run Dynamics: A Survey. **AU** Boyer, Robert; Malgrange, Pierre.

PD November 1989. **TI** Strengths and Weaknesses of Macroeconometric Models. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8901; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 27. **PR** 20 ff. **JE** 023, 132. **KW** Macroeconomic Models. Forecasting. Lucas Critique.

AB This contribution aims at presenting in a nontechnical way the actual state of macroeconomic modelling after forty years of practice and criticism. Macroeconometric models are assessed as sophisticated tools and their usefulness and limitations are discussed in the light of recent developments of macroeconomic theory as well as of econometric methods. It is concluded that there do not exist, at this time, a real substitute for conventional structural modelling.

Mandler, Michael

PD October 1989. **TI** Sequential Indeterminacy in Production Economies. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-12; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 51. **PR** no charge. **JE** 021, 213. **KW** Walrasian Equilibrium. Production Economy. General Equilibrium Model.

AB Since Debreu's landmark paper on the generic finiteness of the equilibrium set of exchange economies, and analogous work for production economies economists have been more confident in the basic coherence of the general equilibrium model. Although some extensions of the framework -- such as the overlapping generations model or models with incomplete markets and financial assets -- show indeterminacy, the rudimentary Arrow-Debreu model does not, at least for generic choices of parameters. Moreover one of the central foundational questions about the general equilibrium model --

how to justify the assumption that agents are competitive price-takers -- turns out to be intertwined with the determinacy issue.

Manelli, Alejandro M.

PD September 1989. **TI** Monotonic Preferences and Core Equivalence. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 859; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 26. **PR** no charge. **JE** 021, 213. **KW** Monotonic Preferences. Core Allocations. Equivalence Theorems.

AB Examples of well behaved sequences of economies, without monotonic preferences, are constructed. These economies have core allocations that cannot be decentralized by prizes, even in a weak sense. Relaxing the monotonicity assumption results in core allocations that are not uniformly integrable, breaking the connection between the continuum and the large finite model. If in addition preferences are nonconvex, even replica sequences of economies with core allocations satisfying the equal treatment property may fail to exhibit equivalence properties. Sufficient conditions to restore convergence are provided.

Mankiw, N. Gregory

PD August 1989. **TI** Stock Market Forecastability and Volatility: A Statistical Appraisal. **AU** Mankiw, N. Gregory; Romer, David; Shapiro, Matthew D. **AA** Mankiw: Harvard University. Romer: University of California, Berkeley. Shapiro: University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-21; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 39. **PR** no charge. **JE** 313, 132. **KW** Stock Market. Forecasting. Efficient Market Hypothesis.

AB This paper presents and implements statistical tests of stock market forecastability and volatility that are immune from the severe statistical problems of earlier tests. Although the null hypothesis of strict market efficiency is rejected, the evidence against the hypothesis is not, however, overwhelming. The data do not provide evidence of gross violations of the conventional valuation model.

Mann, Catherine L.

PD September 1989. **TI** Determinants of Japanese Direct Investment in U.S. Manufacturing Industries. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 362; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 34. **PR** no charge. **JE** 441, 431, 411. **KW** Investment. Portfolios. Japan. Capital Mobility. Exchange Rates.

AB The rapid rise in Japanese owned assets in the United States and the substantial fall of the dollar against the yen naturally raises the question of whether there is a casual relationship between Japanese direct investment and the yen/dollar exchange rate. This paper contributes in two ways to the analysis of the direct investment-exchange rate link. First, it presents a hybrid model of direct investment which incorporates insights from both portfolio balance models and industrial-orangization-based models of direct investment. Second, it tests and compares these three models of direct investment using data for Japanese direct investment in 12 U.S. manufacturing sectors.

Manning, Alan

PD August 1989. **TI** Imperfect Labour Markets, the Stock Market and the Inefficiency of Capitalism. **AA** Birkbeck College. **SR** Centre for Economic Policy Research Discussion Paper: 332; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 24. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 832, 051. **KW** Collective Bargaining. Stock Market. Labor Markets. Capitalism.

AB In a capitalist economy capitalists can sell their stake in a firm on the stock market whereas workers cannot sell their jobs. It is argued that when workers have some bargaining power this asymmetry in property rights leads to inefficiencies. The consequences of this are explored and certain policy options considered.

Mao-cheng, Cai

PD August 1989. **TI** An Eulerian Trail Traversing Specified Edges in Given Order. **AU** Mao-cheng, Cai; Fleischner, Herbert. **AA** Mao-cheng: Institute of Systems Science, Beijing. Fleischner: Institute of Information Processing, Vienna. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89588-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 8. **PR** no charge. **JE** 213. **KW** Eulerian Graph.

AB The following results are proved in this paper. Let G be a 2k-edge-connected eulerian graph. (i) For every set {e(1)...,e(2k+1)} subset of E(G) there is an eulerian trail T of the form e(1) ..., e(2k+1),.... (ii) For every set E* = {e(1)...,e(k)} subset of E(G) there is an eulerian trail T= e(1)...,e(k)... in which the elements of E* are traversed in accordance with a prescribed orientation.

Marion, Nancy

TI Risk Neutrality and the Two-Tier Foreign Exchange Market: Evidence from Belgium. **AU** Flood, Robert; Marion, Nancy.

Markandya, A.

PD January 1989. **TI** Non-linear Prices and Energy Demand. **AU** Markandya, A.; Pemberton M. **AA** University College London. **SR** University College London Discussion Paper: 89-09; Department of Economics, University College London, Gower Street, London WC1E 6BT, ENGLAND. **PG** 19. **PR** 2.00 pounds. **JE** 635, 723. **KW** Energy Demand. Tariffs. Electricity.

AB This paper examines the use of non-linear price structures in the context of the demand for energy. Such structures are attractive because they permit policy makers to meet the objetive of equity without sacrificing that of resource mobilization and economic efficiency. The paper concentrates on two aspects of this issue. The first is the accurate forecasting of demand in the presence of such price structures and the second is the design of the optimal non-linear tariff given some suitable welfare loss-minimizing criterion. In addition to looking at the theoretical aspects of the problem, the paper also has some illustrative results on forecasting demand with non-

linear electricity tariffs in Pakistan.

Marron, J. S.

TI Bootstrap Simultaneous Error Bars for Nonparametric Regression. **AU** Hardle, Wolfgang; Marron, J. S.

Martin, R. Kipp

TI Gainfree Leontief Flow Problems. **AU** Jeroslow, Robert G.; Martin, R. Kipp; Rardin, Ronald L.; Wang, Jinchang.

Mas-Colell, Andrew

TI Determinacy of Equilibrium in Large-Square Economies. **AU** Kehoe, Timothy J.; Levine, David K.; Mas-Colell, Andrew; Zame, William R.

Maskin, E.

TI The Efficient Market Hypothesis and Insider Trading on the Stock Market. **AU** Laffont, J. J.; Maskin, E.

Matsui, Akihiko

PD August 1989. **TI** Cheap Talk and Cooperation in the Society. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 848; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 22. **PR** no charge. **JE** 026. **KW** Cheap Talk. Cooperation. Repeated Games. Coordination Game.

AB This paper considers a society which consists of many individuals. They are divided into two types, and two individuals of different types are randomly matched to play a pure coordination game with cheap talk; that is, in the first stage, each individual announces one of his/her own actions simultaneously, and in the second stage, knowing the announcement of the opponents, they actually play a one-shot pure coordination game. We apply a noncooperative solution concept called cyclically stable sets to this society. The basic concept is accessibility which is defined, roughly speaking, as follows: a strategy profile g is accessible from another strategy profile f if there is a path from f to g where the direction of the path at each point on it is a best response to that point.

Mattei, Aurelio

PD July 1989. **TI** Estimation du Rendement Moyen de L'Energie Electrique Utilisee dans L'Economie Valaisanne. **AA** University of Lausanne. **SR** University de Lausanne Cahiers de Recherches Economiques: 8902; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. **PG** 29. **PR** no charge. **JE** 723, 941, 630, 226. **KW** Electricity. Energy. Factor Productivity.

AB This paper gives an estimation of the average productivity of electric energy produced and used in the economy of Valais (a Swiss Canton). The value-added of electric energy as a factor of production is calculated for 15 industrial sectors. The direct and indirect effects (on employment and GDP) of electric energy produced and exported or used by the local industry are analyzed.

McClelland, Robert

TI Pressure Groups and Redistribution. **AU** Kristov, Lorenzo; Lindert, Peter; McClelland, Robert.

McConnell, Sheena

TI Wages and Collective Bargaining Legislation: The Case for Compulsory Arbitration. **AU** Currie, Janet; McConnell, Sheena.

TI Strikes and Arbitration in the Public Sector: Can Legislation Reduce Dispute Costs?. **AU** Currie, Janet; McConnell, Sheena.

McCormick, Barry

TI Measuring Unemployment and Cyclical Participation in the British Labour Market. **AU** Hughes, Gordon; McCormick, Barry.

TI Is Migration in the 1980's Narrowing the North-South Divide?. **AU** Hughes, Gordon; McCormick, Barry.

McGuire, Mark F.

PD August 1989. **TI** Lost Directions: U.S. Foreign Assistance Policy Since New Directions. **AU** McGuire, Mark F.; Ruttan, Vernon W. **AA** University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 89-5; 231 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 112. **PR** free. **JE** 443, 321. 112. **KW** Foreign Aid. Poverty. Economic Development. Government Policy. Public Aid.

AB Foreign assistance in the United States has been subjected to many diverse and, at times, conflicting objectives. They have ranged from meeting U.S. security and economic needs to enhancing the economic and political development of developing countries. Economic development may dominate the rhetoric of foreign assistance but its implementation reflects a rivalry between the administration and Congress. Each promotes a different agenda in the search for a feasible policy. To understand the reality and the rhetoric of the U.S. assistance program since the inception of BHN it is necessary, consequently, to identify the underlying determinants of the U.S. policy. This paper examines these sources.

McKenzie, George

TI The Turkish Private Saving Behaviour. **AU** Insel, Aysu; McKenzie, George.

McKenzie, Kenneth J.

PD August 1989. **TI** The Neutrality of Business Taxation in the Presence of Capital Adjustment Costs and Risk. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 759; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 42. **PR** $3.00 Canada and U.S.; $3.50 Foreign. **JE** 323, 522, 511, 514. **KW** Business Investment. Depreciation. Profits. Taxes.

AB The investment neutrality conditions of an imputed profits tax which grants ex ante (historical cost) depreciation allowances, are examined in the concurrent presence of income and capital risk and capital adjustment costs. It is shown that neutrality may be achieved with a cost of finance deduction on the full market value of the firm (debt plus equity), but at the risk-free rate of interest, plus depreciation allowances based upon the appropriately determined ex ante rate of economic

depreciation. The ex ante economic depreciation rate is a certainty equivalent, reflecting the systematic and unsystematic, income and capital risk characteristics of the investment.

McLaren, Keith R.

PD October 1989. **TI** A Variant on the Arguments for the Invariance of Estimators in a Singular System of Equations. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 8/89; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 12. **PR** no charge. **JE** 211. **KW** Invariance. Allocation Models. Seemingly Unrelated Regressions. Simultaneous Equations.
AB Allocation models such as consumer demand systems typically imply a degenerate error structure. The usual approach in estimation is to delete one equation, and to appeal to the results of Barten (1969) or Powell (1969) that parameter estimates are invariant to the equation deleted. However, such proofs of invariance are not straightforward. This paper demonstrates that such systems are observationally equivalent to structures common in the simultaneous equations literature, for which invariance is obvious, and hence provides a more transparent demonstration of conditions for invariance.

TI A "Gormanesque" Approach to the Solution of Intertemporal Consumption. **AU** Cooper, Russel J.; Madan, Dilip B.; McLaren, Keith R.

McManus, Douglas A.

PD November 1989. **TI** How Common is Identification in Parametric Models?. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 100; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash.,DC 20551. **PG** 31. **PR** no charge. **JE** 211. **KW** Identification. Nonlinear Models.
AB This paper examines whether identification is a "common" or "rare" phenomenon in nonlinear parametric models. For several broad classes of models, it is shown that there is an open and dense subset of identified models, and that consequently, the set of non-identified model is nowhere dense. The results of this paper suggest that the assumption of linearity in functional relationships to ease the conceptual and computational development of a theory can drastically limit the estimability of the model. An interesting feature of this paper is that global identification is established in the context of nonlinear models. This is surprising in that existing theorems about identification in general nonlinear models tend to be local in nature. Also, the implications of these results for macroeconometrics are considered.

McMillan, John

TI Designing Policies to Open Trade. **AU** Feenstra Robert C.; Lewis, Tracy R.; McMillan, John.

Meeks, G.

TI Export and Die: The Exchange Rate and Company Failure in a Macro-Micro Model. **AU** Goudie, A. W.; Meeks, G.

Meghir, Costas

TI A Microeconometric Model of Intertemporal Substitution and Consumer Demand. **AU** Blundell, Richard; Browning, Martin; Meghir, Costas.

Mehta, J. S.

TI Co-integration: Is it a Property of the Real World?. **AU** Swamy, P. A. V. B.; von zur Muehlen, Peter; Mehta, J. S.

TI On the Use of Variance Ratios in the Analysis of Nonstationary Time Series. **AU** Chandrakantha, M. S. Leslie; Mehta, J. S.; Swamy, P. A. V. B.

Mei, Jianping

PD September 1989. **TI** Variable-Expected-Returns and the Present Value Model: A Panel Study. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 107; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 56. **PR** $3.00. **JE** 313. **KW** Present Value Model. VAR Model. Panel Data. Stock Market. Dividends.
AB Recent development in the estimation of vector autoregressive (VAR) models with panel data enable us to test the rational expectations present value model with variable-expected-returns. We drop a crucial assumption often made in the literature that discount factors are observable ex post. A new approach is developed to determine the minimum number of common risk factors in the market and to test a general model of expected returns. With U.S. data, we find that share dividend-price ratios carry information about the structure of future excess returns and that the rejection of the present value model is dependent upon the variability of expected returns.

PD October 1989. **TI** Do We Have to Know Beta? An Autoregressive Approach to the Test of the APT. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 109; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 52. **PR** $3.00. **JE** 313. **KW** Arbitrage. Autoregressive Model. Risk Premium. Arbitrage Pricing Theory.
AB This paper provides an autoregressive method for testing the Arbitrage Pricing Theory (APT) without estimation of factor loadings and risk premia. The new methodology is based on the observation that past returns of an asset carry information about its exposure to systematic risks and thus can be used to construct ex post risk adjustments for the asset via a cross sectional autoregressive model. We derive several testable implications of the APT for the autoregressive model and drop a crucial assumption often made in the literature that factor risk premia are constant. The approach is robust to changes in factor loadings in some cases. Our empirical study find that there are at least 5-7 factors in the NYSE during the time periods covered by our study and some of the factors are "priced" by the market.

Melitz J.

PD October 1988. **TI** Systemes Monetaires et Systemes de Changes en Europe Occidentale du Seizieme Siecle et d'Aujourd'hui. **AU** Melitz J.; Oudiz, G. **AA** Melitz: Unite de Recherche, INSEE. Oudiz: d'Erole Polytechnique. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8810; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 26. **PR** no charge. **JE** 431, 312, 311, 432, 044. **KW** Exchange Rates. Banking. Monetary Theory. European

Monetary System.
AB The fascinating story of the monetary experience of Occidental Europe that M. T. Boyer-Xambeu, G. Delaplace, and L. Gillard recount in their work, "Private Money and the Power of the Princes," inspires numerous questions about the relationship between this experience and today's in the same geographical area. Is not the role of Lyons in 1533-75 now fulfilled by the European Monetary system and the City of London? Have not the merchant bankers of the sixteenth century simply been replaced by today's large international banks? Aren't the profits that the latter derive from the multiplicity of national monies still coming from the same source? These mupltiple questions are the subject of this article, in which we try to cast light on the evolution of the relationship between the powers, the bankers, and the people in the determination of exchange rates since the sixteenth century.

Metcalf, David

PD October 1989. **TI** Smithfield Meat Market: The Ultimate Pre-Entry Closed Shop. **AA** London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 364; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 45. **PR** no charge. **JE** 831, 631. **KW** Unions. Manufacturing. Labor Force. Meat Market. Food Processing.
AB Smithfield meat market is one of the great sights of London. The TGWU labor supply pre-entry closed shop is correspondingly amazing. It incorporates self-employed as well as employed workers. There are a dozen occupational categories, yet all but one are engaged in the movement of meat and occupational licensing for some workers adds a further layer on top of the closed shop. The Corporation of the City of London, who own Smithfield, have threatened to close it unless labor practices are changed. Simultaneously, in 1990, the Government intends to outlaw all pre-entry closed shops. The monopoly returns to the Smithfield labor force are around 20% but there is no strong evidence that the closed shop has adversely affected profits or jobs.

Mezzetti, Claudio

TI The Possibility of Efficient Mechanisms for Trading an Indivisible Object. **AU** Makowski, Louis; Mezzetti, Claudio.

Michel, Philippe

TI Capacity Adjustments in a Competitive Industry. **AU** Gabszewicz, Jean J.; Michel, Philippe.

Middendorf, Matthias

PD September 1989. **TI** On the Complexity of Recognizing Perfectly Orderable Graphs. **AU** Middendorf, Matthias; Pfeiffer, Frank. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89594-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 7. **PR** no charge. **JE** 213. **KW** Orderable Graphs. NP-complete. Polynomial Algorithm.
AB The question whether a polynomial time recognition algorithm for the class of perfectly orderable graphs exists was posed by Chvatal in 1984 when he introduced the notion of perfect orders. Since then several classes of perfectly orderable graphs have been identified. In this note we prove that recognizing perfectly orderable graphs is NP-complete.

Milgrom, Paul

PD June 1989. **TI** The Economics of Modern Manufacturing: Technology, Strategy and Organization. **AU** Milgrom, Paul; Roberts, John M. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 162; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 48. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 022, 511, 631, 611. **KW** Manufacturing. Technology. Mass Production. Vertical Integration.
AB Manufacturing is undergoing a revolution. The mass production model is being replaced by a vision of a flexible multiproduct firm that emphasizes quality and speedy response to market conditions while utilizing technologically advanced equipment and new forms of organization. Our optimizing model of the firm generates many of the observed patterns that mark modern manufacturing. Central to our results is a method of handling optimization and comparative statics problems that requires neither differentiability nor convexity.

Mischel, K.

PD August 1989. **TI** Noninformative Rational Expectations Equilibria When Assets are Nominal: An Example. **AU** Mischel, K.; Polemarchakis, H. M.; Siconolfi, Paolo. **AA** Columbia University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-260; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 15. **PR** no charge. **JE** 021. **KW** Rational Expectations Equilibria. Equilibrium Prices.
AB When assets are nominal, noninformative rational expectations equilibria exist.

Mishkin, Frederic S.

PD June 1988. **TI** What Does the Term Structure Tell Us About Future Inflation?. **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 2626; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $2.00. **JE** 134, 132, 133, 311. **KW** Inflation. Interest Rates. Term Structure.
AB This paper examines empirically what the term structure of interest rates tells us about future inflation. The evidence indicates that the information in the term structure about the future path of inflation is quite different at the shortest end of the term structure (maturities six months or less) than it is for maturities of nine to twelve months. For maturities of six months or less, in all the sample periods examined--from February 1964 to December 1986--the term structure provides almost no information about the future path of inflation. On the other hand, at this end of the term structure, the results do indicate that the term structure of nominal interest rates contain a great deal of information about the term structure of real interest rates.

Mocan, Naci

TI The Impact of a Ban on Legalized Abortion on Adolescent Childbearing in New York City. **AU** Joyce, Theodore J.; Mocan, Naci.

Monderer, Dov

TI Discounting Versus Undiscounting in Dynamic Programming. **AU** Lehrer, Ehud; Monderer, Dov.

TI Quasi-Values on Subspaces. **AU** Gilboa, Itzhak; Monderer, Dov.

TI A Game-Theoretic Approach to the Binary Stochastic Choice Problem. **AU** Gilboa, Itzhak; Monderer, Dov.

Monfort, A.

TI Simulation Based Inference in Models with Heterogeneity. **AU** Gourieroux, Christian; Monfort, A.

Mookherjee, Dilip

PD April 1987. **TI** Optimal Auditing, Insurance, and Redistribution. **AU** Mookherjee, Dilip; Png, Ivan P. L. **AA** Mookherjee: Stanford University. Png: University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-5; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 17. **PR** $2.00; checks payable to U.C. Regents. **JE** 022, 323, 541. **KW** Insurance. Principal-Agent Theory. Moral Hazard. Auditing. Contracts.

AB We analyze optimal schemes of auditing and insurance (or redistribution) in a context where a risk neutral principal can verify the realized income of risk averse agents at a certain exogenous cost. Our analysis generalizes a model of Townsend, by allowing auditing to be random, as well as by allowing the production of income to be subject to moral hazard. The main result is that in any optimal scheme that provides positive ex-post consumption in every state, all audits must be random. Furthermore, if the agent is verified to have reported truthfully, the principal must reward the agent, so the agent always strictly prefers to be audited after reporting truthfully. We also investigate the monotonicity properties of optimal schemes. The results imply debt contracts are never optimal in this setting.

Moore, George R.

TI The Stability of Wicksell's Monetary Policy Rule. **AU** Fuhrer, Jeffrey C.; Moore, George R.

Morck, Randall

PD June 1989. **TI** Do Managerial Objectives Drive Bad Acquisitions?. **AU** Morck, Randall; Shleifer, Andrei; Vishny, Robert. **AA** Morck: University of Alberta. Shleifer and Vishny: University of Chicago. **SR** National Bureau of Economic Research Working Paper: 3000; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 20. **PR** $2.00. **JE** 522, 521, 511. **KW** Firm Acquisition. Shareholders. Takeovers.

AB This paper documents for a sample of 327 US acquisitions between 1975 and 1987 three forces that systematically reduce the announcement day return of bidding firms. The returns to bidding shareholders are lower when their firm diversifies, when it buys a rapidly growing target, and when the performance of its managers has been poor before the acquisition. These results are consistent with the proposition that managerial rather than shareholders objectives drive bad acquisitions.

Moreno-Brid, Juan Carlos

TI Industrial Pricing in UK Manufacturing Industry Under Conditions of "Stagflation". **AU** Coutts, Kenneth; Godley, Wynne; Moreno-Brid, Juan Carlos.

Mortensen, Dale T.

PD October 1989. **TI** Equilibrium Wage Differentials and Employer Size. **AU** Mortensen, Dale T.; Burdett, Kenneth. **AA** Mortensen: Northwestern University. Burdett: Cornell University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 860; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 32. **PR** no charge. **JE** 324, 821, 822. **KW** Wage Differentials. Firm Size. Wage Dispersion. Unemployment. Labor Force.

AB The presence of matching frictions in the form of lags in the arrival of information about the availability and terms of job offers unifies the labor market models analyzed in this study. Each model presented is related to a perfectly competitive counterpart in a natural way in the sense that its solution converges to the competitive equilibrium as frictions vanish. However, the characteristics of equilibrium when frictions are significant suggest novel theoretical insights and new empirical predictions.

Mouchart, Michel

TI Approximations of Bayesian Solutions in Finite Population Models. **AU** Cocchi, Daniela; Mouchart, Michel.

TI Tales of Testing Bayesians. **AU** Dreze, Jacques H.; Mouchart, Michel.

Mowery, David C.

PD July 1989. **TI** New Developments in U.S. Technology Policy: Implications for Competitiveness and International Trade Policy. **AU** Mowery, David C.; Rosenberg, Nathan. **AA** Mowery: University of California at Berkeley. Rosenberg: Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 166; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 34. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 421, 422, 621, 114. **KW** International Trade. Trade Policy. Technology. Innovation.

AB Recent science and technology policies of the U.S. government have changed in at least three respects. Modifications in the organization and funding of civilian research programs are being made or considered to improve the ability of U.S. firms to realize the commercial profits from the innovations spawned by such research. Defense research funding is being used to support advances in civilian technologies in order to provide eventual technological improvements for the military, a dramatic reversal of earlier patterns of funding and technological spillover. The new science and technology policy priorities of the U.S. government and the increased salience of these issues for foreign governments have elevated the importance of science and technology issues within trade policy. This paper examines the implications of these developments for the international competitiveness of U.S. firms and for the trade-liberalizing objectives of U.S. trade policy.

Murota, Kazuo

PD April 1989. **TI** Note on a Graph-Theoretic Criterion for Structural Output Controllability. **AU** Murota, Kazuo; Poljak, Svatopluk. **AA** Murota: University of Bonn. Poljak:

Charles University, Czechoslovakia. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89584-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 9. **PR** no charge. **JE** 213. **KW** Dynamic Graph. Dynamic System.

AB In this note structural output controllability of a dynamical system is studied. It is well known that the maximum size of a linking in an associated dynamic graph provides a good upper bound on it, and it has been believed that the bound is exact. We disprove this conjecture, and present a new efficiently computable lower bound instead.

PD August 1989. **TI** Structure-Oriented Algorithm for Determining Dynamical Degree. **AA** University of Tokyo. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89591-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTCHLAND. **PG** 11. **PR** no charge. **JE** 213. **KW** Polynomial Matrix. Dynamic System. Combinatorial Optimization. Assignment Problem.

AB Let D(s) = ((D(s))ij) be a square matrix with D(ij) being a polynomial in s. This paper proposes an algorithm for computing the degree of det D(s) based on a well-known structural characterization in terms of perfect matchings of a bipartite graph associated with D. The algorithm is efficient, being purely combinatorial in most cases (or generically) and invoking an algebraic routine only when accidental numerical cancellations occur.

PD August 1989. **TI** Computing Puiseux-Series Expansion via Combinatorial Relaxation. **AA** University of Tokyo. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89593-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 46. **PR** no charge. **JE** 213. **KW** Computer Algebra. Combinatorial Optimization. Convex Hull. Assignment Problem.

AB Let A(t, x) = ((A(t, x))ij) be a square matrix with A(ij) being a polynomial in t and x. This paper proposes an algorithm for computing the Puiseux (=fractional power) series solution x = x(t) to the equation det A(t, x)=0. The algorithm is based on an observation which links the Newton diagram (polygon) for det A(t, x) with the perfect matchings of a bipartite graph associated with A. The algorithm is efficient, making full use of available fast network-type algorithms.

Murphy, Kevin M.

PD June 1989. **TI** Increasing Returns, Durables and Economic Fluctuations. **AU** Murphy, Kevin M.; Shleifer, Andrei; Vishny Robert W. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 3014; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 35. **PR** $2.00. **JE** 133, 131, 023. **KW** Durable Goods. Business Cycles. Economic Fluctuations.

AB We describe an economy where a durable good is produced with an increasing returns to scale technology. Equilibria in this economy takes the form of business cycles in which consumption fluctuates too much and is too low on average. A 2-sector version of this economy with imperfect credit and immobile labor also exhibits aggregate business cycles, in which output and labor inputs in different sectors move together. The model is consistent with a broad range of evidence on economic fluctuations.

Mustafa, Mohammad, G.

TI Research Planning for Food Safety: Preliminary Methodology and Applications. **AU** Hammitt, James K.; Cave, Jonathan A. K.; Mustafa, Mohammad, G.; Valdez, R. Burciaga.

TI Research Planning for Food Safety: Preliminary Methodology and Applications. **AU** Hammitt, James K.; Cave, Jonathan A. K.; Mustafa, Mohammad, G.; Valdez, R. Burciaga.

Nadiri, M. Ishaq

PD June 1989. **TI** Dynamic Factor Demand Models, Productivity Measurement, and Rates of Return: Theory and An Empirical Application to the U.S. Bell System. **AU** Nadiri, M. Ishaq; Prucha, Ingmar R. **AA** Nadiri: New York University and National Bureau of Economic Research. Prucha: University of Maryland. **SR** New York University Economic Research Reports: 89-15; New York University, Faculty of Arts and Science, Departament of Economics, Washington Square, New York, N.Y. 10003. **PG** 48. **PR** none. **JE** 226, 635. **KW** Productivity. Growth Theory. Demand Systems. Technology.

AB Prucha and Nadiri (1982, 1986, 1988) introduced a methodology to estimate systems of dynamic factor demand that allows for considerable flexibility in both the choice of the functional form of the technology and the expectation formation process. This paper applies this methodology to estimate the production structure, and the demand for labor, materials, capital and R&D by the U.S. Bell System. The paper provides estimates for short-, intermediate- and long-run price and output elasticities of the inputs, as well as estimates on the rate of return on capital and R&D. The paper also discusses the issue of the measurement of technical change if the firm is in temporary rather than long-run equilibrium and the technology is not assumed to be linear homogeneous.

PD June 1989. **TI** The Structure of Production, Technical Change and Efficiency in a Multiproduct Industry: An Application to U.S. Airlines. **AU** Nadiri, M. Ishaq; Good, David H.; Sickles, Robin C. **AA** Nadiri: New York University and National Bureau of Economic Research. Good: Indiana University. Sickles: Rice University and National Bureau of Economic Research. **SR** New York University Economic Research Reports: 89-14; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 28. **PR** none. **JE** 226, 615, 621. **KW** Productivity. Transportation. Technological Change. Innovation. Airline Industry.

AB In this paper we set out an integrated model that incorporates a wide range of features of the production process. Our purpose is to assess the sensitivity of the structure of technology to three common assumptions: cost minimizing behavior, the specification of technological change, and the endogeneity of the production technique. The concept of "virtual" prices is explicitly introduced in the model to allow estimation of the "virtual" technology despite potentially non-cost minimizing behavior by our 1977-81 panel of 13 airline firms. Rather than using time as a proxy for changes in the production technique, we employ a variable cost function which explicitly incorporates characteristics of the production

technique and their interactions with the variable inputs as well as dynamic effects arising from the fixity of the capital stock in the short run.

Narendranathan, Wiji

PD August 1989. **TI** Job Search in a Dynamic Environment: An Empirical Analysis. **AA** University of Coventry. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 357; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 37. **PR** no charge. **JE** 822, 824, 821. **KW** Job Search. Unemployment. Reservation Wages. Unemployment Benefits.

AB A dynamic job search model which allows us to distinguish various effects such as "offer" probability effects, leisure effects etc. on individual's behavior is presented and estimated. We find that: (i) there is disutility from being unemployed especially after the first three months of unemployment; (ii) income receipts other than unemployment benefits and earnings have only a very small effect on the behavior; (iii) the conditional probability of leaving unemployment shows no sign of decreasing with duration; (iv) the elasticity of expected duration with respect to unemployment benefits in the first three months of the spell is 0.18 for teenage men, 0.13-0.14 for women aged 24-44, 0.08 for men aged 45-54 and 0.06 for men over 55 giving an overall average of 0.12; (v) these elasticities are zero after the first three months of the spell.

Neary, Peter

PD August 1989. **TI** Export Subsidies and Price Competition. **AA** University College Dublin. **SR** Centre for Economic Policy Research Discussion Paper: 327; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 22. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 422, 411, 612. **KW** Subsidies. Trade Policy. Exports. Bertrand Competition.

AB This paper examines optimal policy towards a home exporting firm which competes on price with a foreign firm. Two policy instruments are compared: an output subsidy and a price subsidy. The paper also considers two games: the conventional ex ante game, in which the government sets the value of the subsidy before firms set their prices, and the ex post game, where firms first set their prices in the anticipation of a subsidy by the government at the second stage. It is shown that the two types of subsidy are equivalent in the ex ante game and that a higher level of welfare can always be achieved in the ex ante than in the ex post game. This reinforces the view that optimal policy in a model characterized by Bertrand competition is an export tax rather than a subsidy.

Nelson, Julianne

PD September 1989. **TI** Principals and Agents: Does the Assignment of Information Matter?. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 530; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 9. **PR** no charge. **JE** 026, 022. **KW** Principal-Agent Theory. Bargaining. Asymmetric Information.

AB The initial allocation of information determines the bargaining position between buyers and sellers. Low variance in buyer type or producer cost implies the distortion from asymmetric information is smaller for informed buyers; high variance implies the distortion is smaller for informed sellers.

PD September 1989. **TI** Toxic Torts and Bankruptcy. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 533; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 22. **PR** no charge. **JE** 916, 722. **KW** Toxic Waste. Laws. Pollution. Environment.

AB Recent court decisions have treated environmental clean-up costs as "administrative expenses" in the event of bankruptcy, ranking these claims ahead of liabilities to unsecured general creditors. This reclassification has the potential to raise borrowing costs and discourage production for those firms generating toxic waste. These court decisions promote economic efficiency as manufacturers are forced to bear more of the full social cost of operation.

Nelson, Julie A.

PD October 1989. **TI** Separability, Scales and Intra-Family Distribution: Some Empirical Evidence. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 346; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 30. **PR** no charge. **JE** 921, 022. **KW** Households. Consumer Theory.

AB This paper presents empirical evidence regarding key assumptions of the Rothbarth and Barten methods of constructing household equivalence scales. An investigation of the intra-household allocation of specific goods implied by the Rothbarth separability assumption yields some estimates of "negative consumption." Evidence on implicit price effects from studies of household economies of scale also suggests that the separability assumption is implausible. The exogeneity of distribution parameters assumed in the Barten model is shown not to hold for the case of observed clothing expenditures. Both models are shown to depend on a definition of household welfare that is at odds with both older understandings of the question of household equivalence and with the more recently developed conceptual foundations of consumer theory.

PD January 1990. **TI** Gender, Metaphor and the Definition of Economics. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 350; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 29. **PR** no charge. **JE** 011, 036. **KW** Gender. Individuality. Competition. Economics. Methodology.

AB Drawing on feminist scholarship regarding the social construction of gender categories and the social construction of the academic disciplines, this paper examines the relationship between cultural conceptions of gender and value and the central defining features of contemporary mainstream economics. The culturally dominant hierarchical conception of gender leads to high value being attributed to subjects and methods perceived as masculine, and a parallel devaluing subjects or methods metamorphically associated with feminity. This paper examines the ways in which this hierarchical gender metaphor has helped to shape economics, and explores the implications for economics of the use of an alternative

"encompassing" metaphor of gender and value.

Neme, Alejandro

TI The Strength of a Little Perfection. **AU** Kalai, Ehud; Neme, Alejandro.

Neuberger, Anthony

PD September 1989. **TI** Current Developments in the London Equity Market. **AU** Neuberger, Anthony; Schwartz, Robert A. **AA** Neuberger: London Business School. Schwartz: New York University. **SR** New York University Salomon Brothers Center Working Paper: 532; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 44. **PR** no charge. **JE** 313. **KW** England. Equity Market. Capital Market. Finance Sector.

AB In October 1986, Big Bang brought enormous change to the London equity market. The change was affected with great speed. Practically overnight, a closed system and trading floor were replaced by an open environment and screen trading. The number of market maker firms shot up from 13 to 33, and the capital committed to market making exploded by a multiple of 15. Commissions and spreads were both driven down by competition as large, integrated financial firms fought for position in the strategically important London market.

Newbery, David M.

PD May 1987. **TI** Cost Recovery From Optimally Designed Roads. **AA** Churchill College. **SR** University of Cambridge Economic Theory Discussion Paper: 111; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KIGDOM. **PG** 20. **PR** $4.00, checks payable to University of Cambridge. **JE** 615, 933. **KW** Transportation. Toll Roads. Highways. Traffic. Highway System.

AB Britain spent an annual average of 3,863 million pounds (1986/87 prices) on roads between 1984/85 and 1986/87, of which 1,599m pounds was capital expenditure. This sum constitutes the "road costs for 1986/87" which are allocated to various road users. Road taxes amounted 9,900m pounds (including car tax). Clearly, road expenditures and road taxes are of significant size and worth the attention of the economist. They are also prime examples of congestive externalities and market failure, and as such have attracted the attention of economist since the early disputes of Pigou (1912) and Knight (1924). The aim of this paper is to explore the theoretical and quantitative relationship between these "road costs" and the congestion externalities for Britain.

PD March 1988. **TI** Optimal Trade Taxes on Agriculture in Developing Countries. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 8902; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 29. **PR** $4.00, checks payable to University of Cambridge. **JE** 713, 422, 421, 121. **KW** Agriculture. Developing Countries. Imports. Agricultural Policy. Trade Taxes.

AB Subsistence foodcrops are hard to tax in developing countries, as are most incomes. It is easy, and common, to tax agricultural imports and exports. If domestic transactions cannot be taxed, how should agricultural trade taxes be set, and how should indirect taxes on non-agricultural consumer goods be set? The paper derives and quantifies formulas for the optimal export tax on a non-food agricultural product, Ghanaian cocoa, in which the country has market power, and the level of indirect taxes on taxable consumer goods. It asks the tax reform question of whether, starting from free trade on cereals, there should be import tariffs or subsidies.

PD November 1988. **TI** Road Transport Fuel Pricing Policy. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 889; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 25. **PR** $4.00, checks payable to University of Cambridge. **JE** 615, 933, 723, 323. **KW** Tax Rates. Gasoline. Energy. Gasoline Taxes. Transportation.

AB Countries vary widely in the tax rates levied on road fuels, despite econometric evidence suggesting quite high price elasticities of fuel demand, and hence potentially high deadweight losses from incorrect pricing. This survey examines the factors shaping fuel taxes, and shows that the correct pricing of road fuels depends sensitively on the instruments available. If sophisticated systems of road pricing can be introduced, then fuel taxes are redundant. If not, they can be an important part of a system of road user charges, though the appropriate level will depend on the way in which fuel taxes impact on the rest of the economy. Quite high rates of gasoline tax appear justified, but high diesel taxes may have adverse effects in developing countries.

PD December 1988. **TI** The Theory of Food Price Stabilization. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 133; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 22. **PR** $4.00, checks payable to University of Cambridge. **JE** 713, 711, 921, 914. **KW** Food Rations. Food Policy. Rations. Agriculture. Price Stabilization. Consumer Economics.

AB Food price instability has important effects on consumers which have been largely ignored in the literature on commodity price instability. The paper discusses these differences, argues that distributional issues are central, and that future markets are not well-designed to provide consumer insurance. The competitive market will undertake too little price stabilization, but a universal ration entitlement, which would act as a substitute for futures markets, would provide more cost effective insurance. If the coverage of ration entitlements is incomplete, however, providing increased price stabilization by additional buffer stocks may be more cost effective than rations.

TI Intertemporal Consistency Issues in Depletable Resources. **AU** Karp, Larry; Newbery, David M.

TI Time Consistent Oil Import Tariffs. **AU** Karp, Larry; Newbery, David M.

Nickell, Stephen

PD May 1989. **TI** Insider Forces and Wage Determination. **AU** Nickell, Stephen; Wadhwani, Sushil B. **AA** Nickell: University of Oxford. Wadhwani: London School of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 310; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 33. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 824, 825,

831. **KW** Wages. Labor Productivity. Unions. Hysteresis.
AB This paper attempts to assess the relative importance of firm-specific factors (i.e., insider forces) in wage determination. Using firm-level data on 219 UK companies over the period 1974-82, it finds that a 1% rise in a firm's prices or productivity relative to the aggregate economy leads to a rise in relative wages of 0.1-0.2%. As a corollary to this, outside factors such as the aggregate wage and the unemployment rate also play an important role. There is evidence for hysteresis effects based on insider forces, but these are inversely related to the extent to which firms take national agreements into account.

PD June 1989. **TI** Employment Determination in British Industry: Investigations Using Micro-Data. **AU** Nickell, Stephen; Wadhwani, Sushil B. **AA** Nickell: University of Oxford. Wadhwani: London School of Economics. **SR** Centre for Economic Policy Research Discussion Paper: 320; 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** 831, 824, 832. **KW** Employment. Unions. Collective Bargaining. Efficiency Wages.
AB This paper derives and then estimates a model of employment where unions and firms bargain over wages and possibly employment, and efficiency wage considerations may be important. It illustrates the difficulties involved in interpreting many existing attempts to discriminate between alternative models. The results (based on over 200 UK firms) suggest that employment is negatively related to the firm's own wage, and some results point to a positive relationship with the alternative wage, such that the implied aggregate employment schedule may even be "perversely" sloped. Various financial factors are also seen to have a significant effect on employment.

Nishihara, Ko

PD August 1989. **TI** Player's Observation, Deductive Knowledge and Information Partitions. **AA** University of Shizuoka and Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 841; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 45. **PR** no charge. **JE** 026. **KW** Information Function. Common Knowledge. Private Information.
AB In this paper, we develop a framework in which players' knowledge and their information partitions are constructed based on the players' perception and their logical deduction. A player knows something if it is observed or logically deduced from the observed facts. A player's information partition is derived from the player's indistinguishability defined as follows: Two states of the world are indistinguishable for a player if there is no difference in his observation at each of those two states. It is shown that the players' knowledge so defined is equivalent to their knowledge defined in the manner given in Aumann (1976) using the information partitions constructed in our framework.

Nollet, Charles

TI Spatial Price Competition with Uninformed Buyers. **AU** Gabszewicz, Jean J.; Garella, Paolo; Nollet, Charles.

Nordhaus, William D.

PD September 1989. **TI** Risk Analysis in Economics: An Application to University Finances. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 924; Yale University, Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 42. **PR** no charge. **JE** 912. **KW** Education. Risk Analysis. Uncertainty.
AB Although the theory of decision making under uncertainty has been extensively studied for a half century, applications to business applications are relatively rare. This study frames a systematic risk analysis and applies the technique to the finances of private colleges and universities. It begins by constructing budgets for colleges and universities and then analyzes the major economic factors affecting those budgets. It estimates the variability (or unpredictability) associated with each major external variable from historical data and from economic forecasts.

PD October 1989. **TI** Alternative Approaches to the Political Business Cycle. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 927; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 85. **PR** no charge. **JE** 025, 133, 321. **KW** Business Cycle. Public Choice. Politics. Political Cycles. Social Choice.
AB This paper reviews the theory and evidence concerning Political Business Cycles (PBC), which are based on the obvious facts of democratic life that voters care about the economy while politicians care about power. The first section provides an overview of different approaches to political cycles, describing five models that have been used in different contexts. The next two sections review major theoretical issues, with attention to the "microfoundations" of politico-economic systems, an exploration of the implications of ideological parties for political equilibria, and a formal analysis of a number of different PBC models.

Nordquist, Gerald L.

TI A More General Measure of Risk Aversion when Utility is State-Dependent. **AU** Kelsey, David; Nordquist, Gerald L.

O'Brien, James M.

TI Bank Equity Values, Bank Risk, and the Implied Market Value of Banks' Assets, Liabilities and Deposit Insurance. **AU** Kuester, Kathleen A.; O'Brien, James M.

Oliner, Stephen D.

PD November 1989. **TI** Internal Finance and Investment: Testing the Role of Asymmetric Information and Agency Costs. **AU** Oliner, Stephen D.; Rudebusch, Glenn D. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 101; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 42. **PR** no charge. **JE** 521, 522, 313. **KW** Business Investment. Asymmetric Information. Capital Markets. Agency Costs. Business Finance.
AB Recent theories assert that information problems in capital markets account for the apparent preference of firms to finance investment with internal funds. To test this hypothesis, we estimate whether investment spending and internal funds are most closely correlated for the firms deemed a priori to face the largest agency costs and asymmetries of information. The attributes used to classify firms include age, stock exchange listing, ownership structure, and the pattern of insider stock trading, among other characteristics. The results provide

qualified support for the view that information problems contribute to the observed financing hierarchy.

Olsen, Trond E.

TI Innovation Diffusion, Learning-By-Doing, and the Optimum Patent Life. **AU** David, Paul A.; Olsen, Trond E.

Osband, Kent

TI A Revealed Preference Theory for Expected Utility. **AU** Green, Edward J.; Osband, Kent.

Oudiz, G.

TI Systemes Monetaires et Systemes de Changes en Europe Occidentale du Seizieme Siecle et d'Aujourd'hui. **AU** Melitz J.; Oudiz, G.

Owen, Guillermo

PD August 1989. **TI** The Multilinear Extension and the Coalition Value. **AU** Owen, Guillermo; Winter, Eyal. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-255; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** no charge. **JE** 026, 021. **KW** Game Theory. Shapley Value.

AB The multilinear extension has been shown to be an effective tool for computing the Shapley value of an n-person game. We modify here the method of the multilinear extension to calculate the modified (coalition) value for such games.

Pakes, Ariel

TI R&D, Patents, and Market Value Revisited: Is There a Second (Technological Opportunity) Factor?. **AU** Griliches, Zvi; Hall, Bronwyn H.; Pakes, Ariel.

Panic, M.

PD June 1989. **TI** The Impact of Multinationals on National Economic Policies. **AA** University of Cambridge. **SR** University of Cambridge Department of Applied Economics Working Paper: 8905; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 26. **PR** $4.00, checks payable to University of Cambridge. **JE** 423, 442, 422. **KW** Multinationals. Economic Policy. Single European Act. European Community.

AB The decision of the EC governments to create a single market for goods and services by the end of 1992 has stimulated a good deal of analysis and debate. One of the more surprising aspects of this rapidly growing literature is that it ignores multinationals almost completely, despite the fact that they play a very prominent role in all these economies. Given this prominence, their actions are bound to have a major influence on the character of the single market and thus on the evolution of a complete economic union within the EC. This paper discusses the most likely response of multinationals to the Single European Act and the impact of this response on some key areas of national and Community economic policy.

Park, Jae Won

TI Capital Controls and International Trade Finance. **AU** Giovannini, Alberto; Park, Jae Won.

Parkin, Vincent

TI Food Subsidies and Inflation in Developing Countries: A Bridge Between Structuralism and Monetarism. **AU** Srinivasan, T. G.; Parkin, Vincent; Vines, David.

Peaucelle, Irina

TI Detecting a Long Run Relationship (with an Application to the PPP Hypothesis). **AU** Gourieroux, Christian; Peaucelle, Irina.

Pemberton M.

TI Non-linear Prices and Energy Demand. **AU** Markandya, A.; Pemberton M.

Pesaran, M. H.

TI Aggregation Bias in Labour Demand Equations for the UK Economy. **AU** Lee, Kevin; Pesaran, M. H.; Pierse, R. G.

TI Testing for Aggregation Bias in Linear Models. **AU** Lee, Kevin; Pesaran, M. H.; Pierse, R. G.

Petit, Pascal

TI Kaldor's Growth Theories: Past, Present and Prospects. **AU** Boyer, Robert; Petit, Pascal.

Pfeiffer, Frank

TI On the Complexity of Recognizing Perfectly Orderable Graphs. **AU** Middendorf, Matthias; Pfeiffer, Frank.

Phillips, Peter C. B.

PD July 1989. **TI** Error Correction and Long Run Equilibria in Continous TIme. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 882R; Yale University, Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 40. **PR** no charge. **JE** 211. **KW** Error Correction. Spectral Regression. Differential Equations. Triangular System. Temporal Aggregation. Co-intergration.

AB This paper deals with error correction models (ECM's) and cointergrated systems that are formulated in continuous time. Problems of representation, identification, estimation and time aggregation are discussed. It is shown that every ECM in continuous time has a discrete time equivalent model in ECM format. Moreover, both models may be written as triangular systems with stationary errors. This formulation simplifies both the continuous and the discrete time ECM representations and it helps to motivate a class of optimal inference procedures. It is further shown that long run equilibria in the continuous system are always identified in the discrete time reduced form, so that there is no aliasing problem for these coefficients.

PD August 1989. **TI** Optimal Inference in Cointegrated Systems. **AA** Yale Unversity. **SR** Yale Cowles Foundation Discussion Paper: 866R; Yale University, Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 28. **PR** no charge. **JE** 211. **KW** Co-integration. Error Correction Model. Maximum Likelihood. Unit Roots. Asymptotic Theory.

AB This paper studies the properties of maximum likelihood estimates of co- integrated systems. Alternative formulations of such models are consider including a new triangular system error correction mechanism. It is shown that full system maximum likelihood brings the problem of inference within the

family that is covered by the locally asymptotically mixed normal asymptotic theory provided that all unit roots in the system have been eliminated by specification and data transformation. This result has far reaching consecqences. It means that cointegrating coefficient estimates are symmetrically distributed and median unbiased asymptotically, that an optimal asymptotic theory of inference applies and that hypothesis tests may be conducted using standard asymptotic chi-squared tests.

PD August 1989. **TI** The Durbin-Watson Ratio under Infinite Variance Errors. **AU** Phillips, Peter C. B.; Loretan, Mico. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 898R; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 42. **PR** no charge. **JE** 211, 212. **KW** Durbin-Watson Ratio. Von Neumann Ratio. Serial Correlation. Dynamic Models. Time Series. Asymptotic Theory.
AB This paper studies the properties of the von Neumann ratio for time series with infinite variance. The asymptotic theory is developed using recent results on the weak convergence of partial sums of time series with infinite variance to stable processes and of sample serial correlations to functions of stable variables. Our asymptotics cover the null of iid variates and general moving average (MA) alternatives. Regression residuals are also considered. In the static regression model the Durbin-Watson statistic has the same limit distribution as the von Neumann ratio under general conditions. However, in dynamic models, the results are more complex and more interesting. When the regressors have thicker tail probabilities than the errors we find that the Durbin-Watson and von Neumann ratio asymptotics are the same.

PD August 1989. **TI** Time Series Regression with Unit Root and Infinite Variance Errors. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 897R; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 27. **PR** no charge. **JE** 211. **KW** Integrated Process. Unit Roots. Random Walk. Time Series.
AB Chan and Tran give the limit theory for the least squares coefficient in a random walk with the iid errors that are in the domain of attraction of a stable law. This note discusses their results and provides generalizations to the case of I(q) processes with weakly dependent errors whose distributions are in the domain of attraction of a stable law. General unit root tests are also studied. It is shown that the semiparametric corrections suggested by the author for the finite variance case continue to work when the errors have infinite variance. The limit laws are expressed in terms of ratios of quadratic functionals of a stable process rather than Brownian motion. The correction terms that eliminate nuisance parameter dependencies are random in the limit and involve multiple stochastic integrals that may be written in terms of the quadratic variation of the limiting stable process.

PD October 1989. **TI** Estimating Long Run Economic Equilibria. **AU** Phillips, Peter C. B.; Loretan, Mico. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 928; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 61. **PR** no charge. **JE** 211. **KW** Co-Integration. Long-Run Equilibrium. Error Correction. Semiparametric Estimation. Asymptotic Theory. Exogeneity.
AB Our subject is econometric estimation and inference concerning long-run economic equilibria in models with stochastic trends. Our interest is focussed on single equation specifications such as those employed in the Error Correction Model (ECM) methodology of David Hendry (1987, 1989 inter alia) and the semiparametric modified least squares method of Phillips and Hansen (1989). We start by reviewing the prescriptions for empirical time series research that are presently available. We argue that the diversity of choices is confusing to practitioners and obscures the fact that statistical theory is clear about optimal inference procedures.

PD October 1989. **TI** Asymptotic and Finite Sample Distribution Theory for IV Estimators and Tests in Partially Identified Structural Equations. **AU** Phillips, Peter C. B.; Choi, I. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 929; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 57. **PR** no charge. **JE** 211. **KW** Instrumental Variable Estimator. Wald Statistics. Finite Sample Theory. Simultaneous Equation Model.
AB General formula for the finite sample and asymptotic distributions of the instrumental variable estimators and the Wald statistics in a simultaneous equation model are derived. It is assumed that the coefficient vectors of both endogenous and exogenous variables are ony partially identified, even though the order condition for identification is satisfied. This work extends previous results in Phillips (1989) where the coefficient vector of the exogenous variables is partially identified and that of the endogenous variables is totally unidentified. The effect of partial identification on the finite sample and asymptotic distributions of the estimators and the Wald statistics is analyzed by isolating identifiable parts of the coefficient vectors using a rotation of the coordinate system developed in Phillips (1989).

Picard, Pierre

TI Efficiency Wage and Macroeconomic Policy. **AU** Jullien, Bruno; Picard, Pierre.

Pierse, R. G.

TI Aggregation Bias in Labour Demand Equations for the UK Economy. **AU** Lee, Kevin; Pesaran, M. H.; Pierse, R. G.

TI Testing for Aggregation Bias in Linear Models. **AU** Lee, Kevin; Pesaran, M. H.; Pierse, R. G.

Pitt, Mark M.

PD October 1989. **TI** The Selectivity of Fertility and the Determinants of Human Capital Investments: Parametric and Semi-parametric Estimates. **AU** Pitt, Mark M.; Rosenzweig, Mark R. **AA** Pitt: Brown University. Rosenzweig: University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 89-9; Department of Economics, 1035 Management & Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 37. **PR** free. **JE** 921, 851, 841. **KW** Fertility. Human Capital.
AB In this paper we assess the importance of heterogeneity and selective fertility in altering estimates and interpretations of the determinants of the human capital of children. We set out a sequential model of human capital investments in children incorporating endogenous fertility and heterogeneity in human capital endowments to illustrate the fertility selection problem and issues of identification. Empirical results based on

parametric and semi-parametric estimates of selectivity models applied to data on birthweight and schooling in Malaysia indicate that the hypothesis of no fertility selection is strongly rejected, with mothers having higher birthweight children tending to have substantially lower birth probabilities (negative birth selectivity).

Plant, Mark W.

TI Non-Parametric Estimates of the Labor Supply Effects of Negative Income Tax Programs. **AU** Ashenfelter, Orley; Plant, Mark W.

Png, Ivan P. L.

PD December 1985. **TI** Optimal Subsidies and Damages in the Presence of Judicial Error. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-3; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 5. **PR** $2.00; checks payable to U.C. Regents. **JE** 916, 613. **KW** Judicial System. Law. Regulation. Court System.
AB Many regulations and legal rules are framed in terms of standards of behavior; regulators and courts are liable to make mistakes in enforcing such standards.

PD November 1986. **TI** Litigation, Liability, and Incentives for Care. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 87-5; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 33. **PR** $2.00; checks payable to U.C. Regents. **JE** 916. **KW** Litigation. Negligence. Law. Judicial System.
AB In this paper, potential injurers are subject to a negligence standard and differ in cost of taking care; in the event of accident, the injurer's degree of care is private information in litigation that follows. Award of damages for pain and suffering will lead to a general increase in care and hence reduce the likelihood of accident. A tighter negligence standard will lead some potential injurers to take more care and others to take less. Adoption of a rule under which the loser at trial must pay the litigation costs of the winner will reduce the pressure for punitive damages.

TI Optimal Auditing, Insurance, and Redistribution. **AU** Mookherjee, Dilip; Png, Ivan P. L.

PD September 1987. **TI** Reservations: Customers Insurance in Marketing of Capacity. **AA** University of California, Los Angeles and National University of Singapore. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 87-11; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 23. **PR** $2.00; checks payable to U.C. Regents. **JE** 641, 022. **KW** Risk Aversion. Production. Excess Capacity. Insurance.
AB This paper analyzes optimal pricing and choice of capacity in the retail marketing of productive capacity. Because customers' realized demand for use of the capacity is private information, the seller is uncertain about total realized demand, and hence it is optimal to over-book. If customers are risk averse, they have demand for insurance against uncertainty in their demand and uncertainty in the availability of capacity. The optimal pricing strategy effects insurance through reservations: a reservation is an option to use capacity. I also analyze how the pricing of reservations depends on other factors such as risk aversion on the part of the seller and ex-ante heterogeneity among the customers.

Polemarchakis, H. M.

TI Asset Markets and Equilibrium Processes. **AU** Dutta, J.; Polemarchakis, H. M.

TI Noninformative Rational Expectations Equilibria When Assets are Nominal: An Example. **AU** Mischel, K.; Polemarchakis, H. M.; Siconolfi, Paolo.

PD August 1989. **TI** The Existence of Competitive Equilibria When the Asset Market is Incomplete: A Short Proof and Further Results. **AU** Polemarchakis, H. M.; Siconolfi, Paolo. **AA** University of Columbia. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-261; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 23. **PR** no charge. **JE** 021. **KW** Asset Markets. Competitive Equilibria. Commodities. Incomplete Markets.
AB When the asset market is incomplete, and assets are traded at an initial contracting period, competitive equilibria may fail to exist. This may occur in a robust economy with asset payoffs denominated in a numeraire comodity. Restrictions on the asset structure guarantee the existence of competitive equilibria; consumption during the contracting period can be interpreted as such a restriction. When asset payoffs are denominated in multiple commodities, competitive equilibria exist generically.

TI The Relevance of Financial Policy. **AU** Detemple, J.; Gottardi, Piero; Polemarchakis, H. M.

TI Asset Pricing and Observability. **AU** Dutta, J.; Polemarchakis, H. M.

Polich J. Michael

TI Recruiting Effects of Army Advertising. **AU** Dertouzos, James N.; Polich J. Michael; Bamezai, Anil; Chestnutt, Thomas.

Polinsky, A. Mitchell

PD June 1989. **TI** A Model of Optimal Fines for Repeat Offenders. **AU** Polinsky, A. Mitchell; Rubinfeld, Daniel L. **AA** Polinsky: Stanford University and National Bureau of Economic Research. Rubinfeld: University of California, Berkeley. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 173; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 24. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 916. **KW** Crime. Deterrence. Fines. Enforcement.
AB This paper analyzes optimal fines in a model in which individuals can commit up to two offenses. The fine for the second offense is allowed to differ from the fine for the first offense. When deciding whether to commit the first offense, individuals take into account the fine that may be imposed on them if they subsequently commit a second offense. The paper shows that a policy of punishing repeat offenders more severely than first-time offenders may result in better deterrence than does a policy of uniform sanctions.

Poljak, Svatopluk

TI Note on a Graph-Theoretic Criterion for Structural Output Controllability. **AU** Murota, Kazuo; Poljak, Svatopluk.

Popper, Steven W.

PD October 1988. **TI** Conflicts in CMEA Science and Technology Integration Policy. **AA** The Rand Corporation. **SR** Rand Paper: P-7491; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 9. **PR** not available. **JE** 621, 423, 421, 113. **KW** Technology. Science. Trade Barriers. Economic Integration.

AB In order to generate substitutes for Western high-technology imports, the Soviet leadership has set out to increase integration of science and technology policy within the Council for Mutual Economic Assistance (CMEA). This paper explores reasons for the slow implementation of the CMEA program in science and technology. It suggests that non-Soviet members of CMEA have not been enthusiastic about participating because of concern over the effect of the program on the interests of individual nations, institutional barriers to its success, and a perception that the program confers unilateral benefits on the Soviet Union at the expense of its allies. Future progress in the direction of integration is unlikely without substantial changes in the institutions of CMEA.

PD March 1989. **TI** The Economic Cost of Soviet Military Manpower Requirements. **AA** Rand Corporation. **SR** Rand Report: R-3659; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 69. **PR** no charge. **JE** 114, 052. **KW** Military Sector. Communism. Soviet Union. Manpower. Labor Market.

AB Labor has become a serious constraint on further growth of the Soviet economy. However, since 1970, the manpower demands of the Soviet military have increased. This report considers both the degree to which current military staffing levels can be maintained and the costs of doing so. It also discusses the reliability of estimates of Soviet force size. The author suggests that, if the Soviet leadership faces a choice between maintaining present forces but endangering the current program of reform and restructuring, or reducing military expenditures to relieve pressure on the economy, the military may be asked to make substantial sacrifices in the interest of prospects of both the military and the nation.

PD March 1989. **TI** The Military Manpower Burden and the Estimation of Soviet Force Size. **AA** The Rand Corporation. **SR** Rand Paper: P-7542; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 33. **PR** not available. **JE** 114. **KW** Conscription. Military Spending. Armed Forces. Soldiers. Soviet Union.

AB This paper examines the Soviet approach to augmentation and maintenance of military force levels. It considers the effect of the shortage of able-bodied men needed to satisfy the conscription levels necessary to meet force size projections. The author suggests that there may be a tendency for Western analysts to overestimate Soviet force size and argues for assessments to be measured against all accurate verifiable data. He acknowledges planners' inability to wait for verifiable data against which to check their projections, but he stresses that an accurately viewed past is crucial in avoiding an inaccurate analysis of the present.

PD March 1989. **TI** Eastern Europe's Reliance on Western Technology. **AA** Rand Corporation. **SR** Rand Paper: P-7529; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 32. **PR** not available. **JE** 621, 421, 422, 321. **KW** Technology. Imports. Trade Policy. Commercial Policy. Government Policy.

AB This paper, a summary of R-3632, is concerned with studies of imports of particular categories of Western technology by countries within the Council for Mutual Economic Assistance (CMEA). It also considers how import levels reflect the general trends of Eastern European dependence on the West. The ability of the United States to effect policy changes by the embargo of technology is shown to be inhibited--statistical evidence indicates that U.S. exports account for tiny percentages of CMEA imports. The author suggests that since the flow of technology out of the West cannot be stopped, carefully managed trading of high-technology goods might be a valuable means of serving policy goals in Eastern Europe.

Portes, Richard

PD September 1989. **TI** Macroeconomic Policy Coordination and the European Monetary System. **AA** Centre for Economic Policy Research. **SR** Centre for Economic Policy Research Discussion Paper: 342; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 23. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 431, 432. **KW** Policy Coordination. Fiscal Policy. Exchange Rates. European Community.

AB This paper discusses the EMS and proposals to move towards EMU in the context of recent theoretical and empirical work on international policy coordination. It treats two particular themes: asymmetry among EMS countries and its implications for policy coordination; and the coordination required to reach agreed European Community macroeconomic policies. Section 1 examines policy coordination in a fixed exchange rate system. Section 2 discusses policy coordination in the Delors Committee Report, with its emphasis on fiscal policies. Section 3 deals with asymmetry and hegemony, and Section 4 suggests reasons to strengthen "absolute" policy coordination in the EC.

Postlewaite, Andrew

TI Asymptotic Efficiency in Large Exchange Economies with Asymmetric Information. **AU** Gul, Faruk; Postlewaite, Andrew.

Prati, Alessandro

TI Public Confidence and Debt Management: A Model and a Case Study of Italy. **AU** Alesina, Alberto; Prati, Alessandro; Tabellini, Guido.

Promel, Hans Jurgen

PD September 1988. **TI** Fast Growing Functions based on Ramsey Theorems. **AU** Promel, Hans Jurgen; Thumser, Wolfgang; Voigt, Bernd. **AA** Promel and Voigt: University of Bonn. Thumser: University of Bielefeld. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 88525-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1,

DEUTSCHLAND. **PG** 35. **PR** no charge. **JE** 213. **KW** Recursive functions. Ramsey Function. Ramsey Theorems.
AB In this paper we present a general framework for defining fast growing functions based on Ramsey theorems. One advantage of our approach is that we are dealing just with colorings of pairs. Such colorings may be interpreted as edge colorings of graphs. To appreciate the fast growingness of our functions we need certain sample functions to compare with. These sample functions are defined by ordinal recursion and are in fact generating functions for hierarchies of recursive functions.

PD March 1989. **TI** Aspects of Ramsey-Theory II: Arithmetic Progressions. **AU** Promel, Hans Jurgen; Voigt, Bernd. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 87497-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 99. **PR** no charge. **JE** 213. **KW** Ramsey Theory. Arithmetic Progressions. Topology.
AB This is a continuation of "Aspects of Ramsey Theory I: Sets." We survey developments of Ramsey Theory related to arithmetic progressions. In chapter one van der Waerden's theorem and related results like Hilbert's cube lemma, Schur's theorem, Gallai-Witt's theorem and the Rado-Folkman-Sanders theorem are treated. Hindman's theorem is proved in chapter three. Chapter two accounts on the Rado-Deuber theory of partition regular matrices. Canonizing results are presented in chapter four. In chapter five various numbers like van der Waerden numbers, Schur numbers, Rado numbers or Hilbert numbers are presented. In chapter six the discrepancy result of Roth, as well as the complementary upper bound of Beck are proved. Chapter seven discusses density results and chapter eight gives a glance at topological dynamics in Ramsey Theory.

TI Placement in VLSI-layout: Combining Partitioning, Global Routing and Timing Analysis. **AU** Garbers, J.; Korte, B.; Promel, Hans Jurgen; Schwietzke, E.; Steger, A.

Prucha, Ingmar R.

TI Dynamic Factor Demand Models, Productivity Measurement, and Rates of Return: Theory and An Empirical Application to the U.S. Bell System. **AU** Nadiri, M. Ishaq; Prucha, Ingmar R.

Pugel, Thomas

TI Internal Rent Capture and the Profit-Concentration Relation. **AU** Bradburd, Ralph; Pugel, Thomas; Pugh, Katrina.

Pugh, Katrina

TI Internal Rent Capture and the Profit-Concentration Relation. **AU** Bradburd, Ralph; Pugel, Thomas; Pugh, Katrina.

Pusa, Thomas J.

TI The Multinational Corporation and Transfer Price Regulation with Imperfect Information. **AU** Donnenfeld, Shabtai; Pusa, Thomas J.

Quiggin, John

TI Behind the Veil: A Survey of Theories of Choice under Ignorance and Uncertainty. **AU** Kelsey, David; Quiggin, John.

Ramaswami, Bharat

PD September 1989. **TI** Incompleteness in Insurance: An Analysis of the Multiplicative Case. **AU** Ramaswami, Bharat; Roe, Terry L. **AA** University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 89-7; 231 Classroom Office Building, University of Minnesota, St. Paul, MN 55108. **PG** 33. **PR** free. **JE** 026, 024. **KW** Insurance. Risk Aversion. Contracts.
AB When there are multiple risks threatening the loss of an asset, insurance schemes contingent on one risk alone are incomplete. Two issues concerning such insurance schemes are studied here. The first issue relates to the consequences of incompleteness for the optimal amount of insurance. The second issue relates to the incentive implications of incomplete insurance. We find that, except when individuals have quadratic utility functions, incompleteness has non-trivial effects on the optimal insurance contract. When marginal utility is convex, incompleteness limits the amount of insurance. An increase in the variance of the individual's income (arising from greater uncertainty about the uninsured variable) decreases the optimal level of insurance.

Ramey, Garey

TI Product Inertia and the Incentive to Innovate. **AU** Greenstein, Shane; Ramey, Garey.

Rardin, Ronald L.

TI Gainfree Leontief Flow Problems. **AU** Jeroslow, Robert G.; Martin, R. Kipp; Rardin, Ronald L.; Wang, Jinchang.

Rasmusen, Eric

PD July 1986. **TI** Stock Banks and Mutual Banks. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-8; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 29. **PR** $2.00; checks payable to U.C. Regents. **JE** 312, 613. **KW** Banking. Commercial Banks. Regulation. Deposit Insurance.
AB Depositors in a mutual bank exert less effective discipline over managers than do shareholders of a stock firm. Mutual banks should therefore be less efficient, yet they have long been important, even before New Deal banking regulation. I suggest that savers preferred the mutual form in the era before deposit insurance because the strength of the mutual's incentives for managers to avoid risk outweighed the weakness of its incentives for managers to minimize costs.

PD September 1986. **TI** Moral Hazard in Risk-Averse Teams. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-1; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 14. **PR** $2.00; checks payable to U.C. Regents. **JE** 022. **KW** Principal-Agent Theory. Contracts. Budgets.
AB Holmstrom (1982) has shown that no budget balancing sharing rule induces a team of risk neutral agents to choose the

first-best actions. This is not generally true when agents are risk averse. Furthermore, a budget balancing contract that punishes many agents when the outcome is low is optimal over a wider range of parameters than is a contract that punishes only one agent.

PD March 1987. **TI** Entry for Buyout. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Anderson Graduate School of Management Business Economics Working Paper: 86-2; 6249C Anderson Graduate School of Management, University of California, Los Angeles, Los Angeles, CA 90024-1481. **PG** 24. **PR** $2.00; checks payable to U.C. Regents. **JE** 611, 511, 522. **KW** Barriers to Entry. Oligopoly. Excess Capacity. Market Structure.
AB The possibility of buying out an entrant has an important effect on entry deterrence. Entrants can blackmail the incumbent by threatening to keep prices low, and buyout can make entry profitable which otherwise would not be. In particular, the entry deterrence policy of excess capacity to reduce the post-entry price can not only fail, but work against the incumbent. The presence of multiple oligopolistic incumbents or multiple potential entrants, however, can discourage entry for buyout.

Razin, Assaf

PD September 1989. **TI** Optimal Incentives to Domestic Investment in the Presence of Capital Flight. **AU** Razin, Assaf; Sadka, Efraim. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 34-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 27. **PR** no charge. **JE** 323, 441, 432, 411. **KW** Exports. Taxation. Open Economy. Capital Flight.
AB This paper develops a model of an open economy which employs distortionary taxes to finance public consumption, and with an access to the world capital market. The paper examines the efficiency of quantity restrictions on capital exports and the accompanying set of taxes. A distinction is made between a benchmark case where the government can fully tax foreign-source income and a more realistic case where the government cannot effectively tax foreign source income.

PD October 1989. **TI** International Tax Competition and Gains from Tax Harmonization. **AU** Razin, Assaf; Sadka, Efraim. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 37-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 22. **PR** no charge. **JE** 323, 423, 431, 411. **KW** Taxation. World Economy. Capital Markets.
AB In a world economy there are two types of distortions which can be caused by capital income taxation in addition to the standard closed-economy wedge between the consumer-saver marginal intertemporal rate of substitution and the producer-investor marginal productivity of capital: (i) international differences in intertemporal marginal rates of substitution, implying an inefficient allocation of world savings across countries; and (ii) international differences in the marginal productivity of capital, implying an inefficient allocation of world investment across countries. The paper focuses on the structure of taxation for countries which are engaged in tax competition and on potential gains from a tax harmonization.

PD December 1989. **TI** Capital Market Integration: Issues of International Taxation. **AU** Razin, Assaf; Sadka, Efraim. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 40-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 22. **PR** no charge. **JE** 441, 442, 423, 411. **KW** Capital Flight. Taxation. Capital Markets. Exports.
AB The paper discusses new issues of international taxation which arise when capital markets are integrated internally. Among these issues: (i) the effects of international capital liberalization on the marginal cost of public funds, the size of government and the magnitude of income redistribution; (ii) optimal restrictions on capital exports in the presence of capital flight; (iii) the system of taxes on income of internationally mobile factors under tax competition among countries; and (iv) gains from tax coordination and tax harmonization.

Redish, Angela

PD December 1988. **TI** The Evolution of the Gold Standard in England. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-36; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 23. **PR** n/a. **JE** 044, 311. **KW** Gold Standard. Bimetallism. Monometallic.
AB In 1816 England officially abandoned bimetallism and made silver coins into tokens that were only legal tender in limited amounts. This paper argues that the monetary authorities had been aware of the flaws of bimetallism for several centuries, but had lacked the ability to introduce a token coinage which was a necessary complement to the monometallic gold standard. A successful token coinage must be hard (i.e., costly) to counterfeit and must be credibly backed to ensure that the tokens do not depreciate to their intrinsic value. I argue that in the nineteenth century, the introduction of steam engines, and the assistance of the Bank of England, allowed England to establish a stable token coinage, which was a prerequisite for the success of the gold standard.

Reiffen, David

PD April 1989. **TI** Terminal Railroad Revisited: Foreclosure of an Essential Facility or Simple Horizontal Monopoly?. **AU** Reiffen, David; Kleit, Andrew N. **AA** Federal Trade Commission. **SR** Federal Trade Commission Bureau of Economics Working Paper: 172; Bureau of Economics, Federal Trade Commission, 6th and Pennsylvania Ave. NW, Washington, D.C. 20580. **PG** 30. **PR** no charge. **JE** 611, 615, 612. **KW** Vertical Integration. Foreclosure. Antitrust Theory. Horizontal Monopoly.
AB St. Louis Terminal Railroad (1912) has been cited by a number of authors as a case of vertical foreclosure by competitive rivals. The alleged foreclosure has been used as a basis for the "Essential Facility Doctrine" an antitrust theory that has attracted a large degree of interest since Aspen Ski (1985). This paper examines the factual basis for the claims of foreclosure. We find that a close examination of Terminal Railroad reveals that, consistent with the economic theory of vertical integration, no foreclosure occurred. Instead, Terminal Railroad was simply a case of horizontal monopoly. Our findings suggest that to the extent the Essential Facilities Doctrine is based upon this case, the doctrine should be

reexamined.

Reisman, Haim

TI Expected Returns and Accounting Betas. **AU** John, Kose; Reisman, Haim.

Reynaud, Benedicte

PD April 1989. **TI** The Evolution of the Wage Compensation System for Industrial Workers: A Sectoral Analysis (1978-1986). **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8912; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 61. **PR** 20 ff. **JE** 824, 832, 122. **KW** Wage Systems. Industrial Sector. France. Wages. Collective Bargaining.

AB This paper studies the evolution of the structure of the wage system (time-wage, individual or collective performance) for France between 1978 and 1986. The analysis focuses on the manufacturing and the construction sectors. We tried to explain, by means of a sectoral analysis, the rising share of the time-wage system and the decline of wage systems based on individual or collective bonuses. Factors that appear to be determinant are the evolution of qualifications and the economic situation of each sector (strategies of modernization, profitability...).

Rizzo, Mario J.

PD November 1989. **TI** Hayek's Four Tendencies Toward Equilibrium. **AA** New York University. **SR** New York University Economic Research Reports: 89-32; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 31. **PR** none. **JE** 021, 031. **KW** Economic Thought. General Equilibrium.

AB In the first section of this essay we distinguish between analytical and empirical tendencies. This distinction is central to the subsequent analysis. In the second section we present a very brief overview of the four meanings that Hayek attaches to the general term "tendency toward equilibrium." Section Three digresses from our main task to provide the reader with a clear picture of the equilibrium toward which it is claimed we are tending. Section Four is the heart of the article. Here we explore in considerable detail the characteristic features of each of the tendencies. In Section Five we conclude that although we have found no critical flaws in the basic structure of his analysis, Hayek, nonetheless, has failed in his effort to provide us with a genuinely casual analysis of the process of equilibration.

Rob, Rafael

TI Long Waves and Short Waves: Growth Through Intensive and Extensive Search. **AU** Jovanovic, Boyan; Rob, Rafael.

Roberts, John M.

PD May 1989. **TI** An Evaluation of the Sources of Aggregate Price Rigidity. **AU** Roberts, John M.; Stockton, David J.; Struckmeyer, Charles S. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 99; Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 34. **PR** no charge. **JE** 131, 134, 227, 023. **KW** Price Adjustment. Inflation. Price Rigidity.

AB The sources of sluggish aggregate price adjustment remain a critical and largely unresolved issue for models in which money affects output. We consider two competing--but not mutually exclusive--theories that provide potentially important explanations of price rigidity. The first theory argues that prices are sticky at the aggregate level because relatively short adjustment lags at the firm level cumulate as goods move through the chain of production. In contrast, the second theory argues that aggregate prices are slow to adjust because individual prices are slow to adjust. We estimate a structural model in which imperfectly competitive firms set prices in order to maximize profits subject to product demand, a production technology, and quadratic costs of price adjustment.

TI The Economics of Modern Manufacturing: Technology, Strategy and Organization. **AU** Milgrom, Paul; Roberts, John M.

Robson, Arthur J.

PD 1989. **TI** Efficiency in Evolutionary Games: Darwin, Nash and the Secret Handshake. **AA** University of Western Ontario. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-22; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 25. **PR** no charge. **JE** 026. **KW** Evolutionary Game. Signalling Theory. Coordination Game.

AB This paper considers any evolutionary game possessing a number of evolutionarily stable strategies, or ESSs, with differing payoffs. A mutant is introduced which will "destroy" any ESS which yields a lower payoff than another. This mutant possesses a costless signal and also conditions on the presence of this signal in each opponent. The mutant then can protect itself against a population playing an inefficient ESS by matching this against these nonsignallers. At the same time, the mutants can achieve the more efficient ESS against the signalling mutant population itself. This construction is illustrated by means of the simplest possible example, a coordination game. The one shot prisoner's dilemma is used to illustrate how a superior outcome which is not induced by an ESS may be temporarily but not permanently attained. In the case of the repeated prisoner's dilemma, the present argument seems to render the "evolution of cooperation" ultimately inevitable.

Roe, Terry L.

TI Incompleteness in Insurance: An Analysis of the Multiplicative Case. **AU** Ramaswami, Bharat; Roe, Terry L.

Roemer, John E.

PD January 1990. **TI** Welfarism and Axiomatic Bargaining Theory. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 351; Department of Economics, University of California at Davis, Davis, CA 95616. **PG** 20. **PR** no charge. **JE** 026, 025. **KW** Nash Equilibrium. Social Choice. Bargaining Theory. Economic Environments.

AB Welfarism is a property of a social choice rule (SCR). Simple welfarism, is an axiom of informational simplicity. It says that, for the purposes of social choice, the set of possible profiles is divided into equivalence classes; all the profiles in an equivalence class generate the same utility possibilities set. A simple welfarist SCR can be viewed as being defined on a domain whose elements are these equivalence classes.

Rogoff, Kenneth

TI Sovereign Debt: Is to Forgive to Forget?. **AU** Bulow, Jeremy; Rogoff, Kenneth.

Romer, David

TI Stock Market Forecastability and Volatility: A Statistical Appraisal. **AU** Mankiw, N. Gregory; Romer, David; Shapiro, Matthew D.

Romer, Paul M.

TI Steady States and Determinacy of Equilibria in Economies with Infinitely Lived Agents. **AU** Kehoe, Timothy J.; Levine, David K.; Romer, Paul M.

Rose-Ackerman, Susan

TI Differentiated Public Goods: Privatization and Optimality. **AU** Economides, Nicoles; Rose-Ackerman, Susan.

Rosen, Asa

PD July 1989. **TI** Bargaining Over Effort. **AA** Centre for Labour Economics, London School of Economics. **SR** London School of Economics Centre for Labour Economics Discussion Paper: 351; Centre for Labour Economics, London School of Economics, Houghton Street, London WC2A 2AE, U.K. **PG** 23. **PR** no charge. **JE** 831, 832, 824, 821. **KW** Bargaining. Wages. Unions. Employment. Collective Bargaining.

AB This paper analyzes, in a partial equilibrium setting, the theoretical relationships between the scope of firm-union bargains and the outcome in terms of wages, employment and working conditions (effort). In particular, the outcome of the bargain over wages and effort, is contrasted with the outcome of pure wage bargaining. It is shown that whenever the former Pareto dominates the latter, it does so by trading off a lower wage with a lower effort. Also, this has a positive effect on employment, the wage reduction more than outweighing the negative influence of lower effort on labor demand.

Rosen, Harvey S.

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

Rosenberg, Nathan

TI New Developments in U.S. Technology Policy: Implications for Competitiveness and International Trade Policy. **AU** Mowery, David C.; Rosenberg, Nathan.

Rosenzweig, Mark R.

PD June 1989. **TI** Wealth, Weather, Risk and the Composition and Profitability of Agricultural Investments. **AU** Rosenzweig, Mark R.; Binswanger, Hans P. **AA** Rosenzweig: University of Minnesota. Binswanger: The World Bank. **SR** University of Minnesota Economic Development Center Bulletin: 89-4; Department of Economics, 1035 Management & Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 34. **PR** free. **JE** 714, 715, 121. **KW** Risk. Investment. Agriculture. Weather. Farming.

AB In this paper we utilize unique panel data from rural India on investments, wealth and rainfall to examine how the composition of productive and non-productive asset holdings varies across farmers with different overall levels of total wealth holdings and across farmers facing different degrees of weather risk. In particular, we propose and implement a test of the central feature of an investment equilibrium characterized by risk-averse agents, namely the existence of a positive association between the average returns to individual production assets and their sensitivity to weather variability. The empirical results reject the hypothesis that the composition of agricultural investments reflects technical scale economies but support the hypothesis that asset portfolios are influenced significantly by farmer's aversion to risk.

PD September 1989. **TI** Credit Market Constraints, Consumption Smoothing and the Accumulation of Durable Production Assets in Low-Income Countries; Investments in Bullocks in India. **AU** Rosenzweig, Mark R.; Wolpin, Kenneth I. **AA** University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 89-8; Department of Economics, 1035 Management & Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 38. **PR** free. **JE** 714, 715, 121, 112. **KW** Investment. India. Agriculture. Farming. Consumption. Weather.

AB In this paper we formulate and estimate a finite-horizon, structural dynamic model of agricultural investment behavior that incorporates income uncertainty, constraints on borrowing and rental markets, returns to farmer experience, and the use of investment assets to both generate income and to smooth consumption. The model yields implications for the purchase and sale of productive assets for income levels that exhibit both "life-cycle" and "high-frequency" consumption-smoothing patterns and is fit to longitudinal household data on farm profits, bullock stocks and pumpsets from the semi-arid tropics of India.

TI The Selectivity of Fertility and the Determinants of Human Capital Investments: Parametric and Semi-parametric Estimates. **AU** Pitt, Mark M.; Rosenzweig, Mark R.

Rossini, Anthony

PD August 1989. **TI** Workstations and Software for Statistical Analysis: Some Thoughts on Environmental Concerns. **AA** Rice University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-251; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 6. **PR** no charge. **JE** 214. **KW** Statistical Analysis. Statistical Programs. Data Analysis. Personal Computers.

AB Workstations are becoming a widely used powerful tool for research in applied mathematics. They have the advantage over microcomputers since they support true windowing multitasking, and usually have faster processors, virtual memory, and been designed for networking. When compared to mainframes, they have better user interfaces, graphical output, and are much cheaper to obtain and maintain. Unfortunately, most statistical programs currently developed for workstations are ported versions of packages designed for microcomputers or mainframes; very few of the advantages, such as flexibility inherent in using workstations are taken advantage of.

Rothwell, Geoffrey S.

TI Incentives for Investment in Safety at Nuclear Power

Plants: The Relative Importance of the Price-Anderson Act and State Regulatory Commissions. **AU** Dubin, Jeffrey A.; Rothwell, Geoffrey S.

TI Subsidy to the Commercial Nuclear Power Industry Through the Price-Anderson Liability Limit. **AU** Dubin, Jeffrey A.; Rothwell, Geoffrey S.

Rubinfeld, Daniel L.

TI A Model of Optimal Fines for Repeat Offenders. **AU** Polinsky, A. Mitchell; Rubinfeld, Daniel L.

Rubinstein, Ariel

PD September 1989. **TI** Renegotiation-Proof Implementation and Time Preferences. **AU** Rubinstein, Ariel; Wolinsky, Asher. **AA** Rubinstein: The Hebrew University of Jerusalem. Wolinsky: Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 850; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 35. **PR** no charge. **JE** 022, 026. **KW** Contracts. Renegotiation. Time Preferences.

AB This paper explores how the requirement that the implementation of contracts be renegotiation proof affects the set of contracts which theoretically can be implemented in a seller-buyer scenario in which the information regarding the agents' valuations is nonverifiable. The paper's main contribution is that, first, it explicitly adds a time dimension to an implementation problem, and second, it introduces a natural criterion of renegotiation proofness for the case of time consuming renegotiation. Consequently, the results regarding the set of implementable contracts are different from those in the related literature.

Rudebusch, Glenn D.

TI Internal Finance and Investment: Testing the Role of Asymmetric Information and Agency Costs. **AU** Oliner, Stephen D.; Rudebusch, Glenn D.

Ruhter, Wayne E.

TI Parental Malincentives, Social Legislation and Deficit Financing Part I: The Economics of the Matter. **AU** Thompson, Earl A.; Ruhter, Wayne E.

Rustichini, Aldo

PD July 1989. **TI** Cournot-Nash Equilibrium Distribution for Games with Differential Information. **AU** Rustichini, Aldo; Khan, M. Ali. **AA** Khan: Johns Hopkins University. Rustichini: Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 857; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 14. **PR** no charge. **JE** 026, 022, 213. **KW** Cournot Equilibrium. Differential Information. Expected Utility.

AB In this paper we report results on the existence and upper hemicontinuity of Cournot-Nash equilibrium distributions for large anonymous games with differential information.

TI A Vintage Capital Model of Investment and Growth: Theory and Evidence. **AU** Benhabib, Jess; Rustichini, Aldo.

TI Equilibrium Cycling with Small Discounting: A Note. **AU** Benhabib, Jess; Rustichini, Aldo.

Ruttan, Vernon W.

TI Lost Directions: U.S. Foreign Assistance Policy Since New Directions. **AU** McGuire, Mark F.; Ruttan, Vernon W.

PD November 1989. **TI** What Happened to Political Development?. **AA** University of Minnesota. **SR** University of Minnesota Economic Development Center Bulletin: 89-10; Department of Economics, 1035 Management & Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 45. **PR** free. **JE** 112, 031, 053. **KW** Development Models. Politics. Economic Development.

AB This paper represents an attempt to assess what development economists should learn from theory and research in the field of political development. The first section of the paper reviews the contributions of several development economists who have attempted to give explicit attention to the political preconditions for economic development. A second section reviews the evolution of thought in the field of political development. The author notes that political scientists have avoided answering a central question--what is it that grows in the process of political development? A final section of the paper argues that political power, measured in terms of both its amount and distribution, should be employed as the measure of political development.

Ruud, Paul A.

PD February 1989. **TI** A Comparison of the EM and Newton-Raphson Algorithms. **AA** University of California at Berkeley. **SR** University of California at Berkeley Working Paper in Economics: 89-105; IBER, 156 Barrows Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 13. **PR** $3.50. **JE** 211, 214. **KW** Maximum Likelihood. Scoring. Information Matrix. Algorithms.

AB In a general setting, the EM and Newton-Raphson algorithms are compared as gradient methods. The superior convergence rates of Newton-Raphson in a neighborhood of the maximum likelihood estimator are explained as the failure of the EM to use the proper Hessian. Intermediate results show that the EM algorithm provides information matrix estimators as easily as Newton-Raphson and that one can conveniently switch from one algorithm to the other. Louis' improvement of EM by Aitken acceleration is shown to be divergent in some cases.

Saari, Donald G.

PD August 1989. **TI** Consistency of Decision Processes. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 842; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 30. **PR** no charge. **JE** 025, 026, 213. **KW** Decision Theory. Consistency. Committees. Voting. Majority Voting.

AB Often it is tacitly assumed for decision procedures that if the parts agree, then that is the outcome for the whole. If two subcommittees reach a common decision, then that should be the outcome when they join as a committee of the whole. If statistical tests conducted in two different locales reach the same conclusion, then that conclusion should hold for the aggregated data. It is shown, however, that this consistency property does not hold for large classes of standard statistical and decision procedures. Also, it is shown how the properties

of this concept of "weak consistency" are related to questions of manipulability and to certain classes of decision paradoxes.

Sabourian, Hamid

PD January 1986. **TI** Some Notes on Rational Conjectural Equilibrium from a Game-Theoretic Perspective: Part I and Part II. **AA** King's College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 117; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 93. **PR** $4.00, checks payable to University of Cambridge. **JE** 022, 026. **KW** Repeated Game. Partial Equilibrium Model. Conjectural Models.

AB The paper consists of two essays on rational conjectural equilibrium (RCE) in terms of "correctness". In the essays, I shall discuss the different notions of "rationality" of conjectures (based on "correctness") and characterize their solutions. The main results of the essays are: (i) In general there is a continuum of RCE. (ii) Some interesting price behavior, such as kinked demand behavior and mark-up pricing can be supported as a RCE in a partial equilibrium model. (iii) Conjectural models can be regarded as a static representation of either a repeated game story with adjustment cost, or an instantaneous response repeated game, and that the rationality condition (in the "correctness" sense) on conjectures amounts to subgame perfectness in the supergame.

PD April 1987. **TI** Wage Norms and Involuntary Unemployment. **AA** King's College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 116; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 20. **PR** $4.00, checks payable to University of Cambridge. **JE** 824, 831, 832. **KW** Involuntary Unemployment. Unemployment. Bargaining. Unions. Labor Force. Wages.

AB This paper provides an explanation for the existence and stability of unionized labor force and thereby explains the possibility of non-Walrasian wages and involuntary unemployment. The model is a repeated game bargaining process where the insiders obtain high wages by colluding and protecting each other. It is rational for each insider to collude because if he does not, he will not be protected by other insiders in the future and will be at the mercy of the firm. The highest wage that insiders can obtain depends on the size of the reserve army relative to the size of the firm(s).

TI Some Notes on the Economies of the Barter, Money and Credit. **AU** Anderlini, Luca; Sabourian, Hamid.

PD February 1989. **TI** Anonymous Repeated Games with a Large Number of Players and Random Outcomes. **AA** King's College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 135; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 35. **PR** $4.00, checks payable to University of Cambridge. **JE** 026. **KW** Repeated Games. Nash Equilibrium. Game Theory.

AB Green (1980) demonstrates that in anonymous repeated games with random outcomes, any play of the game which can be sustained as an equilibrium by a sort of trigger strategy is approximately a Nash equilibrium of the stage game if there is a large, but finite, number of players and if the stage game satisfies a certain continuity assumption. This paper shows that Green's result holds when no restrictions are imposed on the strategies of the players. Moreover, the result of this paper shows that, in general, in order to obtain a convergence of the set of equilibrium outcomes of the repeated game to the set of NE of the stage game, as the number of players become large, Green's continuity assumption cannot be relaxed.

Sadka, Efraim

TI Optimal Incentives to Domestic Investment in the Presence of Capital Flight. **AU** Razin, Assaf; Sadka, Efraim.

TI International Tax Competition and Gains from Tax Harmonization. **AU** Razin, Assaf; Sadka, Efraim.

TI Capital Market Integration: Issues of International Taxation. **AU** Razin, Assaf; Sadka, Efraim.

Safra, Zvi

PD February 1989. **TI** Risk Aversion in Nash Bargaining Problem with Risky Outcomes and Risky Disagreement. **AU** Safra, Zvi; Zhou, Lin; Zilcha, Itzhak. **AA** Safra: Tel Aviv University and University of Pennsylvania. Zhou: Princeton University. Zilcha: Tel Aviv University. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-05; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 10. **PR** no charge. **JE** 026. **KW** Nash Equilibrium. Bargaining. Risk Aversion.

AB The Nash bargaining problem has attracted a lot of attention in the last decade. In a deterministic framework, Kihlstrom, Roth and Schmeidler (1981) have analyzed the effect of risk aversion on several solution concepts, particularly on the Nash solution, and found that increasing risk aversion is disadvantageous. Roth and Rothblum (1982) have dealt with the same problem in a framework that contain risky outcomes as well, but where the disagreement outcome is still deterministic. They have shown that the deterministic results no longer hold. Specifically, if the disagreement outcome is preferred to a deterministic outcome that is part of the Nash solution then risk aversion may be advantageous. In our opinion, the analysis of the Nash bargaining problem with risky outcomes must include the cases where the disagreement outcome itself is risky as well.

Salant, Stephen W.

PD August 1989. **TI** Predicting Committee Behavior in Majority-Rule Voting Experiments. **AU** Salant, Stephen W.; Goodstein, Eban. **AA** Salant: University of Michigan. Goodstein: Skidmore College. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-25; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 30. **PR** no charge. **JE** 025, 215. **KW** Committees. Voting. Committee Voting. Majority Rule. Median Voter.

AB Before this foresight assumption can be tested experimentally, more accurate predictions of committee voting behavior are needed when foresight is not at issue. This paper develops such predictions. Like Fiorina-Plott (1978) and the subsequent literature, we discovered that committees in our experiments frequently failed to select the Condorcet alternative (the core of the majority ruly voting game). We formulated a new theory which takes account of threshold

effects. The revised theory identifies a "selection set" and predicts it will contain the committee's choice. In our own experiments, the theory predicted well under both the original and the revised voting procedures. Our estimated model also accurately predicted the committee choices in the past experiments of other researchers.

Salmon, Mark

TI Credibility and the Value of Information Transmission in a Model of Monetary Policy and Inflation. **AU** Basar, Tamer; Salmon, Mark.

Sappington, David E. M.

TI On the Boundaries of the Firm: Self Provision vs. Subcontracting. **AU** Lewis, Tracy R.; Sappington, David E. M.

Saunders, Anthony

PD May 1989. **TI** Non Bank Financial Innovations in East Africa. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 522; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 20. **PR** no charge. **JE** 121, 112, 311. **KW** Financial System. Africa. Government Sector. Economic Development. Developing Countries.

AB In recent years there have been major moves by a number of African countries towards liberalizing their financial systems. In doing so there has been the belated recognition that real sector economic development and a free (or relatively free) financial sector are inextricably linked. While to some extent a major motivating force has been the conditionality requirements laid down as part of IMF and World Bank structural adjustment programs, these developments would not have occurred without the endogenous acquiescence of the government (in some cases) and the endogenous motivation of the private sector (in others).

PD June 1989. **TI** The Pricing of Retail Deposits: Concentration Versus Information. **AU** Saunders, Anthony; Udell, Gregory F. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 524; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 14. **PR** no charge. **JE** 312. **KW** Banking. Commercial Banks. Prices.

AB The traditional structure-conduct-performance (S-C-P) hypothesis analyzes the efficiency of banking markets by examining the relationship between concentration and the mean level of prices. The traditional S-C-P hypothesis, however, ignores the dispersion of bank fees and rates around their mean levels. This paper tests two hypotheses which are capable of explaining the dispersion of the elements in the retail bank pricing vector -- a concentration/collusion-based hypothesis and an asymmetric information-based hypothesis. Evidence is found that the dispersion of bank fees and rates is negatively related to the level of deposit concentration and is positively related to the degree of customer heterogeneity in the market.

Scarf, Herbert E.

PD November 1989. **TI** Mathematical Programming and Economic Theory. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 930; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 26. **PR** no charge. **JE** 213, 021. **KW** Integer Programming. Prices. Factors of Production. Algorithms.

AB The paper discusses the analogy between economic institutions and algorithms for the solution of mathematical programming problems. The simplex method for solving linear programs can be interpreted as a search for market prices that equilibrate the demand for factors of production with their supply. An interpretation in terms of the internal organization of the large firm is offered for Lenstra's integer programming algorithm.

Schepanski, Al

TI Testing for Regret and Disappointment in Tax Compliance Decisions. **AU** Kelsey, David; Schepanski, Al.

Schiantarelli, Fabio

TI Investment and Tobin's Q: Evidence from Panel Data. **AU** Blundell, Richard; Bond, Stephen; Devereux, Michael B.; Schiantarelli, Fabio.

Schmeidler, David

TI Infinite Histories and Steady Orbits in Repeated Games. **AU** Gilboa, Itzhak; Schmeidler, David.

Schmidt, Peter

TI Production Frontiers with Cross-Sectional and Time-Series Variation in Efficient Levels. **AU** Cornwell, Christopher; Schmidt, Peter; Sickles, Robin C.

Schmidt, Rachel

PD July 1988. **TI** Civil and Military R&D Spending: The Case of Numerically Controlled Machine Tools. **AA** Rand Corporation. **SR** Rand Paper: P-7471; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 51. **PR** not available. **JE** 114, 621. **KW** Technology. Military Research. R&D. Military Spending.

AB This paper discusses the numerically controlled (NC) machine tool industry as part of a broader study conducted by the RAND Graduate School's Civil and Military Technology Workshop. After giving a brief history and description of the industry, the author addresses the spillover effect that military research and development investments in this area might have on the civilian economy, how military investments might be used to overcome existing market failures in joint military/civilian NC machine tool industries, and any negative impact that military investments might have on pertinent technological development due to investment crowding or raising of market prices.

PD September 1988. **TI** Brazilian Arms Production: Partial Dependence. **AA** RAND Graduate School. **SR** Rand Paper: P-7490; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 31. **PR** not available. **JE** 114. **KW** Military Spending. Brazil. National Defense. Defense Spending.

AB The Brazilian government has cultivated an impressive aerospace and military production base. Its strongest areas are civil and military airframe production, light armored vehicles,

and missiles. Ample investment resources, an active government role in the industry, and limited preconditions on the end-use of exported arms have contributed to the rapid advancement of Brazil's arms production capabilities, but not without cost. The government has expended large amounts of funding and technical support that might have been used in alternative investments, and relations have been strained with the United States and other countries. Gaps in indigenous capabilities cause the military to look abroad for some procurements. Arms trade is an important portion of export earnings but is only one component of a diversified export economy.

Schrader, Rainer

TI Orders and Graphs. **AU** Faigle, Ulrich; Schrader, Rainer.

Schurger, Klaus

PD November 1989. **TI** Almost Subadditive Extensions of Kingman's Ergodic Theorem. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: B-127; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** no charge. **JE** 211. **KW** Entropy. Subadditive Processes. Ergodic Theory.

AB Based on two notions of almost subadditivity which were introduced by Derriennic and Schurger, two a.s. limit theorems are proved which both generalize Kingman's subadditive ergodic theorem. These results, being valid under weak moment conditions, are obtained by short proofs. One of these proofs is completely elementary and does not even make use of Birkhoff's ergodic theorem which, instead, is obtained as a byproduct.

Schwartz, Robert A.

TI Current Developments in the London Equity Market. **AU** Neuberger, Anthony; Schwartz, Robert A.

Schwietzke, E.

TI Placement in VLSI-layout: Combining Partitioning, Global Routing and Timing Analysis. **AU** Garbers, J.; Korte, B.; Promel, Hans Jurgen; Schwietzke, E.; Steger, A.

Scotchmer, Suzanne

TI Collusion Through Insurance: Sharing the Costs of Oil Spill Cleanups. **AU** Dekel, Eddie; Scotchmer, Suzanne.

Scott, Anthony D.

TI Transfrontier Pollution: Cooperative and Noncooperative Solutions. **AU** Conrad, Jon M.; Scott, Anthony D.

TI Does the Prisoner's Dilemma Apply to a Fishery. **AU** Bjorndal, Trond; Scott, Anthony D.

Seabright, Paul

PD October 1988. **TI** Short-Termism in Financial Markets: A Principal-Agent Model with Externalities. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 132; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 43. **PR** $4.00, checks payable to University of Cambridge. **JE** 313. **KW** Financial Markets. Trading. Transaction Costs. Signalling.

AB This paper develops a series of principal-agent models of trading in securitized financial markets, in an attempt to explain two phenomena allegedly characteristic of such markets: a short-term horizon over which agents optimize, and the presence of active trading strategies performing persistently less well than passive index-matching strategies that economize on transaction costs. The key to the models is an informational externality between these markets and related markets for financial intermediation; in the latter there may be little information on the relative abilities of different agents, so that performance in active securitized trading may be used as a signal of agents' types, and may have a signalling value even if the direct expected returns to trading are negative.

Sebo, Andras

PD October 1989. **TI** On Cographic Multicommodity Flow Algorithms. **AA** Universite Fourier de Grenoble. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89583-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenaueralee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 8. **PR** no charge. **JE** 213. **KW** Multicommodity Flow Problem. Eulerian Problem.

AB The "cographic multicommodity flow problem" has recently been proved to be NP-complete by M. Middendorf and F. Pfeiffer (1989). In this paper we give a survey of some solvable cases. We are also interested in finding more general solvable classes closed under minor containment.

Seidmann, Daniel

TI Strikes and Deadline Effects in Bargaining with Endogenous Commitment. **AU** Fershtman, Chaim; Seidmann, Daniel.

Selten, Reinhard

TI Alternating Bid Bargaining with a Smallest Money Unit. **AU** van Damme, Eric; Selten, Reinhard; Winter, Eyal.

Sen, Gautam

TI The Impact of the Military Research and Development Priorities on the Evolution of the Civil Economy in Capitalist States. **AU** Buzan, Barry; Sen, Gautam.

Sertel, Murat R.

PD December 1988. **TI** On the Continuity of Closed Convex Hull. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 88-24; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 9. **PR** no charge. **JE** 213. **KW** Continuity. Closed Hull. Convex Hull. Topology.

AB It is shown that the closed convex hull operator h is continuous on the space K of nonempty compact subsets of a real locally convex Hausdorff topological vector space, so long as h(K) is a subset of K.

PD December 1988. **TI** A Paradox in Efficiency, Competition and Trade. **AA** University of Pennsylvania and Bogazici Universitesi. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social

Sciences (CARESS) Working Paper: 88-25; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 17. **PR** no charge. **JE** 615, 024. **KW** Cournot Equilibrium. Transportation. Social Welfare. Competition.
AB Greater efficiency in the transport sector is a boon to society, as is increased competition. In particular, a fall in unit transport costs which enhances competition and trade will increase social welfare. A simple example is provided, showing how all the above is false.

TI Pretend-But-Perform Regulation by Rehabilitation of Limit Pricing. **AU** Koray, Semih; Sertel, Murat R.

TI Meta-Cournotic Equilibrium in Oligopoly: Positive or Regulatory Theory?. **AU** Koray, Semih; Sertel, Murat R.

TI Resolving Paradoxical Centipedes Behavioristically or by Unilateral Predonations. **AU** Chen, Fangruo; Sertel, Murat R.

Shafer, Wayne

TI Lecture Notes in Incomplete Markets II. **AU** Geanakoplos, John; Magill, Michael; Shafer, Wayne.

Shapiro, Matthew D.

TI Stock Market Forecastability and Volatility: A Statistical Appraisal. **AU** Mankiw, N. Gregory; Romer, David; Shapiro, Matthew D.

Shi, Shouyong

TI Capital Accumulation and the Current Account in a Two-Country Model. **AU** Devereux, Michael B.; Shi, Shouyong.

Shleifer, Andrei

TI Increasing Returns, Durables and Economic Fluctuations. **AU** Murphy, Kevin M.; Shleifer, Andrei; Vishny Robert W.

TI Do Managerial Objectives Drive Bad Acquisitions?. **AU** Morck, Randall; Shleifer, Andrei; Vishny, Robert.

Shoven, John B.

PD February 1989. **TI** The U.S. Tax Reform of 1986: Is it Worth Copying?. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 152; 100 Encina Commons, Stanford University, Stanford CA 94305. **PG** 19. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 323, 321, 122. **KW** Tax Reform. Taxes. Politics.
AB The 1986 Tax Reform Act in the United States has been hailed by some as landmark legislation and the realization of the impossible dream, not everyone sees it that way. From my perspective, the 1986 tax bill gets decidedly mixed grades on these early design criteria. I would give it a B or B- on efficiency and neutrality, and F on economic growth, a B on fairness, and a gentleman's C on simplicity. With a report card like that, it is worth looking at what went wrong. Given the early kudos that accompanied passage of the bill, it also makes sense to ask this grader for the explanations for the low grades. That is the purpose of this paper.

Sickles, Robin C.

TI The Structure of Production, Technical Change and Efficiency in a Multiproduct Industry: An Application to U.S. Airlines. **AU** Nadiri, M. Ishaq; Good, David H.; Sickles, Robin C.

TI Production Frontiers with Cross-Sectional and Time-Series Variation in Efficient Levels. **AU** Cornwell, Christopher; Schmidt, Peter; Sickles, Robin C.

PD July 1989. **TI** The Structure of Technology, Substitution, and Productivity in the Interstate Natural Gas Transmission Industry Under the Natural Gas Policy Act of 1978. **AU** Sickles, Robin C.; Streitwieser, Mary L. **AA** Rice University. **SR** New York University Economic Research Reports: 89-17; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 38. **PR** none. **JE** 132, 226, 635. **KW** Productivity. Industry Studies. Natural Gas. Deregulation. Energy.
AB The purpose of this paper is to examine the production technology and cost structure of the interstate natural gas pipeline industry under partial price deregulation. We have constructed a new panel of 24 interstate pipeline companies over the period 1977-1985. We employ a variable cost function to estimate scale elasticities, substitution possibilities, and technical and productive change. Empirical results indicate substantial long-run economies of scale in the natural gas pipeline industry, considerable long-run substitution among most inputs, and a marked decline in total factor productivity while the industry was regulated by the Natural Gas Policy Act of 1978.

Siconolfi, Paolo

PD May 1989. **TI** Real Indeterminacy in Incomplete Financial Market Economies without Aggregate Risk. **AU** Siconolfi, Paolo; Villanacci, Antonio. **AA** Siconolfi: Columbia University. Villanacci: University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-07; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 23. **PR** no charge. **JE** 021. **KW** Competitive Equilibrium. Incomplete Markets. Exchange Economy. Financial Markets. Allocations.
AB We analyze an exchange economy with incomplete financial markets and assets whose returns are fixed in units of accounts. Moreover, we assume absence of aggregate risk i.e., individual preferences and total resources are constrained to be invariant across different states of the world. In the framework we show that the set of commodity-price and endowment equilibria is diffeomorphic to an Euclidean space. Furthermore, we exploit that global parameterization to prove that the set of equilibrium allocations associated to each endowment in a generic set contains a smooth manifold, whose dimension is equal to the number of "missing" securities. This last fact is in sharp contrast with the well-known result that, when markets are complete, the lack of aggregate risk implies the invariance of competitive allocations across states.

TI Noninformative Rational Expectations Equilibria When Assets are Nominal: An Example. **AU** Mischel, K.; Polemarchakis, H. M.; Siconolfi, Paolo.

TI The Existence of Competitive Equilibria When the Asset Market is Incomplete: A Short Proof and Further Results. **AU** Polemarchakis, H. M.; Siconolfi, Paolo.

Silber, William L.

TI Tailing the Hedge: Why and How. **AU** Figlewski, Stephen; Landskroner, Yoram; Silber, William L.

Singh, Ajit

TI The Rise and Fall of the Golden Age. **AU** Glyn, Andrew; Hughes Alan; Lipietz, Alain; Singh, Ajit.

TI Institutional Investment, Mergers and the Market for Corporate Control. **AU** Cosh, A. D.; Hughes, A.; Lee, Kevin; Singh, Ajit.

Slade, Margaret E.

PD September 1988. **TI** Strategic Pricing with Customer Rationing: The Case of Primary Metals. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-28; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 34. **PR** n/a. **JE** 632, 611. **KW** Oligopoly. Rationing. Commodity Markets. Primary Metals. Market Power.

AB For many years, primary metal prices in North America were set by the major firms in the industry whereas those in other regions were determined in competitive auction markets. We therefore have an opportunity to observe if the prices chosen by oligopolists were higher than their competitive counterparts. What we observe, however, is that on the average they were lower. In addition, in periods of high demand, firms in these industries often ration their customers in an attempt to keep the price down. A model is developed to explain these empirical regularities. In the model, firms with market power are aware that the price which they charge today affects their demand tomorrow.

PD November 1988. **TI** What Does an Oligopoly Maximize? Necessary and Sufficient Conditions for the Equivalence Between a Nash Equilibrium and an Optimization Problem. **AA** University of British Columbia. **SR** University of British Columbia Department of Economics Discussion Paper: 88-35; 997-1873 East Mall, Vancouver, CANADA V6T 1W5. **PG** 15. **PR** n/a. **JE** 611, 022, 026. **KW** Oligopoly. Nash Equilibrium. Optimization.

AB A monopolist maximizes profits and a competitive market maximizes social welfare, but what does an oligopoly maximize? This paper presents necessary and sufficient conditions for a Nash equilibrium to be equivalent to an optimization problem. In the context of oligopoly, these conditions determine when a market where each player maximizes a private profit function is observationally equivalent to one where a single agent maximizes a single well define "fictitious" objective function. The main proposition is illustrated with four examples: a homogeneous-product Cournot-Nash oligopoly, a market with differentiated products, an open-loop equilibrium for a resource-extraction problem, and a repeated game with continuous reaction-function strategies.

Smith, Alasdair

PD December 1989. **TI** The Market for Cars in the Enlarged European Community. **AA** University of Sussex. **SR** Centre for Economic Policy Research Discussion Paper: 360; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 17. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 411, 422, 631. **KW** Trade Policy. Imports. Exports. European Community.

AB This paper analyzes the effects of European Community trade policy towards the car market, in a formal model in which the motor industry is treated as an imperfectly competitive industry with economies of scale in production. Voluntary restrictions on exports of Japanese cars to Community markets are modeled as having an anti-competitive effect. The model is numerically calibrated to 1988 data and a range of policy changes are simulated, including the entry of Spain and Portugal into the Community, and the reduction of border barriers and fiscal harmonization associated with the Community's 1992 program. The main focus is on the effects of changes in the Community's external trade policy.

Smith, Eric

PD December 1989. **TI** Why is Automobile Insurance in Philadelphia so Damn Expensive?. **AU** Smith, Eric; Wright Randall. **AA** University of Pennsylvania. **SR** University of Pennsylvania Center for Analytic Research in Economics and the Social Sciences (CARESS) Working Paper: 89-16; University of Pennsylvania, Center for Analytic Research in Economics and the Social Sciences, McNeil Building, 3718 Locust Walk, Philadelphia, PA 19104-6297. **PG** 36. **PR** no charge. **JE** 916, 024. **KW** Automobile Insurance. Insurance. Insurance Premiums. Liability.

AB This paper analyzes automobile insurance. We first document that the price of coverage not only can be high, but varies dramatically across local markets. Our thesis is that high premiums can be attributed to the large number of uninsured motorists in some cities, while at the same time, the number of uninsured motorists can be attributed to the high premiums. This circularity is made explicit in a simple noncooperative equilibrium framework. A key assumption is that of limited liability, which introduces a non-convexity for low income individuals. This potentially allows for equilibria with uninsured drivers, and high (yet actuarially fair) premiums. These equilibria are not efficient and are dominated by full insurance.

Smith, P. N.

PD May 1989. **TI** Testing for Speculative Bubbles in Exchange Rates. **AU** Smith, P. N.; Wickens, M. R. **AA** Smith: London Business School and Australian National University. Wickens: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8916; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 32. **PR** no charge. **JE** 431. **KW** Exchange Rates. Speculation. Bubbles. Asset Market.

AB The failure of theoretical models of exchange rates based on economic fundamentals has directed attention to the possibility that the behavior of exchange rates is dominated by speculative bubbles. Various types of tests have supported this argument. These tests for asset market bubbles are critically reviewed and one based on cointegration theory proposed. It is argued that the evidence derived from these tests may have been misinterpreted. Rejection of cointegration may imply the presence of a speculative bubble in the long-run solution, but it

may also be due to misspecified fundamentals. Cointegration tests are carried out for five different models of exchange rate fundamentals for the UK effective exchange rate. The PPP, Monetary and Dornbusch models all provide evidence in support of the presence of a bubble, but Meese's relative PPP version of the monetary model and the structural econometric model of Smith and Wickens give much more support to the fundamentals and far less to the bubbles hypothesis.

Snell, Andrew

TI The Consequences of Mrs. Thatcher for UK Manufacturing Exports. **AU** Landesmann, Michael; Snell, Andrew.

Snower, Dennis J.

TI Macroeconomic Implications of Insider Power. **AU** Lindbeck, Assar; Snower, Dennis J.

TI Demand and Supply Side Policies and Unemployment: Policy Implications of the Insider-Outsider Approach. **AU** Lindbeck, Assar; Snower, Dennis J.

Sokoloff, Kenneth L.

PD December 1989. **TI** The Democratization of Invention During Early Industrialization: Evidence from the U.S., 1790-1846. **AU** Sokoloff, Kenneth L.; Khan, B. Zorina. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 578; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 22. **PR** $2.50. **JE** 042, 621. **KW** Invention. Industrialization. Patents.

AB We argue that the rapid growth in inventive activity during early American industrialization was characterized by a disproportionate increase in the involvement of segments of the population with relatively common skills and knowledge. Rather than being accounted for by an elite who possessed rare technical knowledge or commanded large amounts of financial resources, the rise in patenting coincided with a broadening of the ranks of patentees to encompass many individuals, occupations, and geographic districts which had been only modest participants beforehand.

Solomou, Solomos

TI The Macroeconomics of Protectionism: A Case Study of Britain in the 1930's. **AU** Kitson, Michael; Solomou, Solomos.

PD March 1988. **TI** British Economic Growth, 1870-1913: Facts and Artifacts. **AU** Solomou, Solomos; Weale, Martin. **AA** Solomou: Peterhouse, Cambridge. Weale: Clare College. **SR** University of Cambridge Department of Applied Economics Working Paper: 886; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 35. **PR** $4.00, checks payable to University of Cambridge. **JE** 226, 044. **KW** Economic Growth. Growth Rate. England. Economic History. Industrial Revolution.

AB The recent revisions of the macroeconomic data for the Industrial Revolution put forward by Crafts (1985), Harley (1982) and Williamson (1984) illustrate clearly how data revisions can affect our understanding of specific historical epochs. In this paper we show how conclusions about the historic growth path of the economy are dependent on the specific features of the data used; we then assess the implications for perceptions about economic growth of both new estimates of particular economic data series and a new statistical technique for reconciling inconsistent estimates of national income. This allows us to investigate the extent to which conclusions about some aspects of UK economic growth may be rather weakly based.

Sousa, Jorge P.

PD January 1989. **TI** Time Indexed Formulations of Non-Preemptive Single-Machine Scheduling Problems. **AU** Sousa, Jorge P.; Wolsey, Lawrence A. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8904; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 21. **PR** no charge. **JE** 213. **KW** Scheduling Problem. Integer Programming.

AB We consider the formulation of the non-preemptive single machine scheduling problem using time-indexed variables. This approach leads to very large formulations, but gives better lower bounds than other mixed integer programming formulations. We derive a variety of valid inequalities, and show the role of constraint aggregation and the knapsack problem with generalized upper bound constraints as a way of generating such inequalities. Computational experience on small problems with 20/30 jobs and various constraints and objective functions are presented.

Spiegel, Mark M.

TI Debt Write-Downs and Debt-Equity Swaps in a Two Sector Model. **AU** Goldberg, Linda; Spiegel, Mark M.

PD September 1989. **TI** Concerted Lending: Did Large Banks Bear the burden?. **AA** New York University. **SR** New York University Economic Research Reports: 89-24; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 42. **PR** none. **JE** 433, 443, 312, 315. **KW** Banking. Debt Crisis. Debtor Nation. Creditors.

AB Heterogeneity in creditor incentives may hinder potentially Pareto-improving creditor collective actions. In this paper, a game-theoretic model of lending with banks heterogenous by the size is introduced. In equilibrium, atomistic small banks free ride on the conciliatory-relending efforts of the large bank. An empirically testable corollary conclusion suggests that "news" concerning the underlying economic condition of the debtor nation will have a greater impact on the large bank. This empirical prediction is validated for the Latin American Debt Crisis period using evidence from long-term bond spread data. Poolings of cross sectional time series data reveal that the equity values of large banks are relatively more sensitive to adverse "news" concerning the quality of Latin American loans. The reported results are robust to a variety of sensitivity experiments concerning model specification.

Spraos, John

PD 1989. **TI** Income Transfers and Income Stability Under Alternative Schemes for Coping with Commodity Price Fluctuations: A Unified Diagrammatic Exposition. **AA** University College London. **SR** University College London Discussion Paper: 89-10; Department of Economics, University College London, Gower Street, London WC1E 6BT, ENGLAND. **PG** 24. **PR** 2.00 pounds. **JE** 711, 713. **KW** Commodities. Income Transfers. Buffer Stock.

AB A first attempt at a systematic analysis of a multilateral guarantee scheme is combined with a treatment, similar in scope and homogeneus in exposition, of a buffer stock scheme. The income transfer and income stability consequences of both schemes are derived and compared.

Srinivasan, T. G.

PD August 1989. **TI** Food Subsidies and Inflation in Developing Countries: A Bridge Between Structuralism and Monetarism. **AU** Srinivasan, T. G.; Parkin, Vincent; Vines, David. **AA** Srinivasan and Vines: University of Glasgow. Parkin: Credit Suisse First Boston Limited. **SR** Centre for Economic Policy Research Discussion Paper: 334; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 47. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 713, 121, 134, 323. **KW** Agriculture. Subsidies. Food Supply. Inflation. Developing Countries.

AB This paper examines the efficacy of food consumption subsidies as anti-inflation policy in developing countries characterized by rigidities of food supply. First a standard structuralist model is utilized to show that though a policy of food consumption subsidies brings down inflation in the very short run, eventually it is self-defeating: a lower relative price of food encourages demand for scarce food and exacerbates inflationary pressures. Next, a monetarist feature, the asset creation effects of subsidy payments feeding through the government budget constraint, is added to the structuralist model. One might expect that this would reinforce the results of the structuralist model, but it is shown that the ensuing inflation is not unambiguously higher than the inflation in the pure structuralist version.

Staiger, Robert W.

PD June 1989. **TI** Strategic Use of Antidumping Law to Enforce Tacit International Collusion. **AU** Staiger, Robert W.; Wolak, Frank A. **AA** Stanford University. **SR** National Bureau of Economic Research Working Paper: 3016; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 42. **PR** $2.00. **JE** 916, 026, 022. **KW** Antidumping Law. Collusion, Repeated Games. Credible Threat.

AB We consider the impact of domestic antidumping law in a two-country partial equilibrium model where domestic and foreign firms tacity collude in the domestic market. Firms engage in an infinitely repeated game, with each period composed of a two stage game. In the first stage each firm chooses capacity before stochastic domestic demand is realized. In the second stage, after demand is realized, each firm then sets price. We show that the introduction of domestic antidumping law typically leads to the filing of antidumping suits by the domestic industry in low demand states - and to more successful collusion and greater market share for domestic firms during periods of low demand as a result. This occurs in spite of the fact that antidumping duties are never actually imposed.

Steger, A.

TI Placement in VLSI-layout: Combining Partitioning, Global Routing and Timing Analysis. **AU** Garbers, J.; Korte, B.; Promel, Hans Jurgen; Schwietzke, E.; Steger, A.

Steinmueller, W. Edward

TI The ISDN Bandwagon is Coming--Who Will Be There to Climb Aboard?: Quanderies in the Economics of Data Communication Networks. **AU** David, Paul A.; Steinmueller, W. Edward.

Stockman, Alan C.

TI Self-Fulfilling Expectations, Speculative Attacks and Capital Controls. **AU** Dellas, Harris; Stockman, Alan C.

Stockton, David J.

TI An Evaluation of the Sources of Aggregate Price Rigidity. **AU** Roberts, John M.; Stockton, David J.; Struckmeyer, Charles S.

Stokey, Nancy L.

PD September 1989. **TI** The Volume and Composition of Trade between Rich and Poor Countries. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 849; J.L. Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208. **PG** 44. **PR** no charge. **JE** 411, 023. **KW** International Trade. Product Quality. Population. Terms of Trade.

AB North-South trade is studied using a characteristics model of quality differentiation. In it, the South produces a low-quality spectrum of goods and the North a high-quality spectrum. An increase in the North's population decreases the relative wage there, shifts the spectrum of Northern products downward, and contracts the spectrum of Southern products. An increase in the North's human capital decreases its unit labor input requirement for each good and increases its relative wage. If the net effect is to improve the South's terms of trade, then the spectrum of Northern products expands, the spectrum of Southern products contracts, and the volume of trade grows; otherwise, these effects are reversed. Similar results hold for changes in the South.

Streitwieser, Mary L.

TI The Structure of Technology, Substitution, and Productivity in the Interstate Natural Gas Transmission Industry Under the Natural Gas Policy Act of 1978. **AU** Sickles, Robin C.; Streitwieser, Mary L.

Struckmeyer, Charles S.

TI An Evaluation of the Sources of Aggregate Price Rigidity. **AU** Roberts, John M.; Stockton, David J.; Struckmeyer, Charles S.

Sturm, Roland

PD October 1989. **TI** Self-Consistent Estimation of Continuous Failure Time Models with Discrete Data. **AA** Stanford University and Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 187; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 10. **PR** no charge. **JE** 211. **KW** Duration Models. Discrete Data. EM-Algorithm. Measurement Error.

AB Ignoring measurement errors in failure times can seriously bias estimation. This paper demonstrates the bias and

suggests a self consistent procedure when the dependent variable is subject to measurement error caused by grouping or rounding data. This method is particularly useful since the exact likelihood function is difficult to maximize and maximizing the exact likelihood is computationally expensive. A simulation study gives some indication of small sample properties and an application to the well-known leukemia data set of Freirich et. al. (1963) shows how results can differ between uncorrected continuous time models and models adjusting for measurement error.

PD November 1989. **TI** Parametric and Smoothed Distribution-Free Proportional Hazard Models for Discrete Data. **AA** Stanford University and Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 190; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 27. **PR** no charge. **JE** 211. **KW** Proportional Hazard. Discrete Time. Measurement Error. Hazard Models.
AB This paper discusses discrete time proportional hazard models and suggests a new class of flexible hazard functions. Explicitly modeling the discreteness of data is important since standard continuous models are biased; allowing for flexibility in the hazard estimation is desirable since strong parametric restrictions are likely to be similarly misleading. Simulations compare continuous and discrete models when data are generated by grouping and demonstrate that simple approximations can recover underlying hazards fairly well and outperform nonparametric maximum likehood estimates in terms of mean squared error.

Sutch, Richard

TI The Labor Market in the 1890s: Evidence from Connecticut Manufacturing. **AU** Carter, Susan B.; Sutch, Richard.

Swamy, P. A. V. B.

PD November 1989. **TI** Co-integration: Is it a Property of the Real World?. **AU** Swamy, P. A. V. B.; von zur Muehlen, Peter; Mehta, J. S. **AA** Swamy and von zur Muehlen: Federal Reserve System. Mehta: Temple University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 96; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash., DC 20551. **PG** 11. **PR** no charge. **JE** 211, 212. **KW** Co-integration.
AB Co-integration analysis, as developed by Granger (1981), has been widely used to test for the existence of equilibrium relationships among economic variables. Trust in the outcome of co-integration tests as an aid in identifying long-run relationships is unfounded because a critical element in the methodology, the so-called co-integrating vector, is not unique either in sign or magnitude, depending on situations that cannot be identified using data. The answer is therefore: No!.

TI On the Use of Variance Ratios in the Analysis of Nonstationary Time Series. **AU** Chandrakantha, M. S. Leslie; Mehta, J. S.; Swamy, P. A. V. B.

Sweeney, James L.

PD March 1989. **TI** An Assessment of Oil Import Fees. **AA** Stanford University. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 154; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 31. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 723, 323, 421, 422. **KW** Import Fees. Tariffs. Petroleum. Oil. Energy. Public Policy.
AB This paper reviews and quantifies arguments for and against oil import fees. It concludes that expected exemption from the fee imply that net economic costs to the U.S. of a fee would exceed economic benefits. In addition, the welfare losses from a fee as large as $10 per barrel would exceed losses normally associated with instruments designed to raise tax revenues. Coupled with the non-economic assessment, the economic analysis suggests that the adoption of an oil import fee would be poor public policy.

Tabellini, Guido

TI Public Confidence and Debt Management: A Model and a Case Study of Italy. **AU** Alesina, Alberto; Prati, Alessandro; Tabellini, Guido.

Tait, Alan A.

PD October 1989. **TI** IMF Advice on Fiscal Policy. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/87; International Monetary Fund, Washington, DC 20431. **PG** 22. **PR** not available. **JE** 321. **KW** Fiscal Policy. Taxes. Government Expenditures.
AB IMF advice on fiscal policy is given within a strong accounting framework. Published sources in the last ten years show the direction and change of advice. The treatment of central bank losses, government arrears, and credit subsidies are discussed as examples. Advice on taxation, expenditure, growth, prices, and distribution is examined. Some broad lessons are drawn on sustainability of policy, short versus long run policies, and objectivity of advice.

Takagi, Shinji

PD December 1989. **TI** Foreign Exchange Market Intervention and Domestic Monetary Control in Japan, 1973-89. **AA** International Monetary Fund. **SR** International Monetary Fund Working Paper: WP/89/101; International Monetary Fund, Washington, DC 20431. **PG** 27. **PR** not available. **JE** 431, 432, 311. **KW** Foreign Exchange. Monetary Policy. Japan. Money Growth. Financial Markets.
AB The paper presents an empirical analysis of official foreign exchange market intervention and domestic monetary control in Japan during 1973-89. It shows that: (1) the authorities, a net purchaser of foreign exchange over this period, began to intervene more decisively in 1978; and (2) they began to accomodate a greater portion of the resulting reserve inflows in 1985. This greater reserve accomodation, however, was not the principal cause of the recent surge in broad money growth. Rather, it was lower interest rates and financial market liberalization that precipitated the rapid monetary expansion, which in turn facilitated the greater accomodation of reserve inflows.

Taylor, John B.

PD June 1988. **TI** Differences in Economic Fluctuations in Japan and the U.S.: The Role of Nominal Rigidities. **AA** Stanford University and National Bureau of Economic Research. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 153; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 30. **PR** NC for members of non-profit institutions, $3.00 otherwise.

JE 131, 311, 023. **KW** Economic Fluctuations. Wage Rigidities. Monetary Policy. Japan. Wage Determination.
AB This paper examines the differences between economic fluctuations in the U.S. and Japan during the period from 1972 through 1986. During this period, the size of the fluctuations in real output in Japan were much smaller than in the US. This difference is independent of the method of detrending and shows up clearly in a simple time series plots. Using vector autoregressions and their moving average representations, important differences in the dynamics of inflation and output are uncovered. These differences are examined using a macroeconomic theory that combines monetary factors and slow wage adjustment. The theory suggests that differences in wage determination and monetary policy can explain most of the differences in output and price fluctuations in the two countries.

Taylor, Mark P.

TI Charts, Noise and Fundamentals: A Study of the London Foreign Exchange Market. **AU** Allen, Helen; Taylor, Mark P.

Terrell, Henry S.

PD September 1989. **TI** The U.S. and U.K. Activities of Japanese Banks: 1980-1988. **AU** Terrell, Henry S.; Dohner, Robert S.; Lowrey, Barbara R. **AA** Terrell and Lowrey: Board of Governors of the Federal Reserve System. Dohner: Stanford University. **SR** Board of Governors of the Federal Reserve System International Finance Discussion Paper: 361; Division of International Finance, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. **PG** 38. **PR** no charge. **JE** 433, 441, 442. **KW** International Banking. Japan. Regulation. Interest Rates.
AB This paper analyzes the U.S. and U.K. activities of Japanese banks. The paper integrates the activities of the Japanese banks in these two markets with the regulatory environment for banks in Japan, with Japan's overall external financial position, as well as with business opportunities in the two host country markets. The paper concludes that the domestic regulatory environment in Japan, including restraints on interest rates, and possible quantitative restraints, has had an important impact on the activities of Japanese banks in these two foreign markets.

Thisse, Jaques-Francois

TI Social Surplus and Profitability Under Different Spatial Pricing Policies. **AU** Anderson, Simon P.; de Palma, Andre; Thisse, Jaques-Francois.

Thomas S. H.

TI Non-Parametric Estimates of the Foreign Exchange and Equity Risk Premia and Tests of Market Efficiency. **AU** Wickens, M. R.; Thomas S. H.

Thomas, S. H.

PD September 1989. **TI** International CAPM: Why Has it Failed?. **AU** Thomas, S. H.; Wickens, M. R. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8914; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 31. **PR** no charge. **JE** 441, 431, 433. **KW** CAPM. Capital Markets. ARCH. International Markets. Bonds. Equities.
AB Previous empirical studies of international CAPM models have not found much supporting evidence. In this paper we suggest reasons why this might have happened and perform new tests using improved models and data. A range of monthly CAPM models are estimated for 1973-1987 for aggregate equities and bonds in Germany, Japan, the U.S. and U.K.. The models are an improvement on earlier work in that we integrate equity markets into the analysis instead of focussing exclusively on government bond stocks, and we carefully measure the rates of return for both bonds and equities. Despite this wider portfolio and the introduction of ARCH effects in the conditional covariance matrix of errors, our model still yields unlikely estimates of the coefficient of relative risk aversion and provides very little explanatory power for expected relative rates of return.

PD December 1989. **TI** Non-Parametric Estimates of the Foreign Exchange and Equity Risk Premia and Tests of Market Efficiency. **AU** Thomas, S. H.; Wickens, M. R. **AA** University of Southampton. **SR** Centre for Economic Policy Research Discussion Paper: 356; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 32. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 431, 313. **KW** Exchange Rates. Risk Premium. Stock Market. Efficient Markets.
AB It is widely thought that neither the foreign exchange markets nor equity markets are efficient, in the sense that tests of the unbiasedness hypothesis and of the present value relationship, respectively, typically lead to rejection. Interest has therefore turned to whether a risk premium exists. This paper provides non-parametric estimates of the foreign exchange and equity risk premia, i.e., estimates that do not depend on any particular model of risk. The average risk premia for three exchange rates (the DM, Yen, Pound are all against the Dollar) and for four stock markets (West Germany, Japan, the United Kingdom and United States) over 1973-88 are shown to be quite small. In contrast, considerable variation is discovered in these risk premia during this period.

Thompson, Earl A.

PD January 1989. **TI** Parental Malincentives, Social Legislation and Deficit Financing Part I: The Economics of the Matter. **AU** Thompson, Earl A.; Ruhter, Wayne E. **AA** Thompson: University of California at Los Angeles. Ruhter: University of Texas at Dallas. **SR** University of California at Los Angeles Department of Economics Working Paper: 544; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 42. **PR** $2.50. **JE** 911, 921, 024. **KW** Legislation. Families. Family Transfers.
AB This paper rationalizes the commonly observed pattern of social legislation. Building upon our first optimality theorem -- that parents Pareto optimally raise their children under laissez faire if and only if they plan to later provide the fully grown children with lump-sum transfers -- we show that four complementary laws produce a pareto optimum. The laws provide: (1) minimum consumption and leisure levels for children; (2) minimum childhood education levels; (3) subsistence support for elderly parents; and (4) subsidies to childbearing. Non-legislative thought systems solving the parental malincentive problem are, going backwards through the history of civilization, church-based religion, humanism, local ancestor worship, gerontocracy, and matriarchy.

Thumser, Wolfgang

TI Fast Growing Functions based on Ramsey Theorems. **AU** Promel, Hans Jurgen; Thumser, Wolfgang; Voigt, Bernd.

Thursby, Jerry

TI Smuggling, Camouflaging, and Market Structure. **AU** Jensen, Richard; Thursby, Jerry; Thursby, Marie.

Thursby, Marie

TI Smuggling, Camouflaging, and Market Structure. **AU** Jensen, Richard; Thursby, Jerry; Thursby, Marie.

Tindall, Michael

TI Buffer Stock Models of the Demand for Money and the Conduct of Monetary Policy. **AU** Lothian, James R.; Darby, Michael R.; Tindall, Michael.

Tinsley, P.A

TI The Long and Short of Industrial Strength Pricing. **AU** Kan, William; Krieger, Reva; Tinsley, P.A.

Tornell, Aaron

PD September 1989. **TI** Dual vs. Uniform Exchange Rates: A Welfare Comparison. **AA** Columbia University. **SR** Columbia Department of Economics Working Paper: 442; Department of Economics, Columbia University, New York, New YOrk 10027. **PG** 27. **PR** $5.00. **JE** 431, 432, 411. **KW** Exchange Rates. Interest Rates. Production Economy.

AB In the existing literature, dual exchange rates are a welfare-reducing distortion because they introduce a wedge between the domestic and the world interest rates. In this paper we depart from the distortion-free representative consumer framework, by considering two groups: workers and investors, and a production economy. We show that, in this framework, dual rates are Pareto-superior to uniform rates from an ex-ante perspective. On the one hand, in the absence of shocks, the "wedge" disappears. On the other hand, in the presence of shocks, the "wedge" counteracts the existing distortions in the economy.

Toshiaki, Tachibanaki

TI Demand for Insurance: Choice Between Safe Assets, Risky Assets and Insurance in Japan. **AU** Keiko, Shimono; Toshiaki, Tachibanaki.

Treble, John G.

PD August 1989. **TI** The Pit and the Pendulum: *Arbitration in the British Coal Industry, 1893-1914*. **AA** University of Hull. **SR** Centre for Economic Policy Research Discussion Paper: 328; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 30. **PR** 1 pound ($2) individuals; 1.50 pounds ($3) companies, libraries, institutions. **JE** 832, 831, 632. **KW** Negotiations. Arbitration. Collective Bargaining. Coal Industry. Wages. Unions.

AB In this paper, we construct a game form based on the constitutions of conciliation boards in the British coal industry and show how the induced game can be used to explain certain features of the wage negotiations for which the conciliation boards were responsible. In particular, we test various alternative explanations of the observed frequency of appeal to the arbitrator. The results are generally favorable to the view that the negotiators behaved rationally, within the constraints imposed by the boards' constitutions.

Trela, Irene

PD June 1988. **TI** Do Developing Countries Lose from the MFA?. **AU** Trela, Irene; Whalley, John. **AA** University of Western Ontario. **SR** National Bureau of Economic Research Working Paper: 2618; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** $2.00. **JE** 422, 421, 121, 411. **KW** Quotas. Exports. Textiles.

AB This paper provides estimates of both national and global welfare costs of bilateral quotas on textiles and apparel using an applied general equilibrium model which covers bilateral quotas on exports of textiles and apparel negotiated between three major developed importing countries under the provisions of the Multifibre Arrangement applying in mid-1980s (MFA III). Results using 1986 data clearly show that the vast majority of developing countries gain from MFA removal, with some gaining proportionately more than others.

Trognon, A.

PD July 1988. **TI** Une Note Sur L'Efficacite des Procedures Destimation en Deux Etapes. **AU** Trognon, A.; Gourieroux, Christian. **AA** Trognon: ENSAE. Goureiroux: Universite de Lille, CEPREMAP. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8808; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 21. **PR** no charge. **JE** 211. **KW** Econometric Models. Two Step Methods. Asymptotic Theory. Tobit Model.

AB The two step estimation procedures are very attractive because of their computational simplicity even when they are used for the estimation of complex econometric models. Their main drawbacks are inefficiency and very high sensitivity to the precision of the first round estimator. The present note proposes a two step method which is unaffected by the first round (at least asymptotically) and which is as efficient as the estimation procedure to which it is applied. This note describes also an asymptotically efficient two step estimation procedure for the TOBIT which produces a positive estimation for the variance of the disturbances.

Tuckman, Bruce

PD October 1989. **TI** Grandfather Clauses and Optimal Portfolio Revision. **AU** Tuckman, Bruce; Vila, Jean-Luc. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: 534; Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 90 Trinity Place, New York, NY 10006. **PG** 17. **PR** no charge. **JE** 323, 635. **KW** Taxes. Tax Reform. Insurance.

AB Grandfather clauses protect a security from adverse changes in the tax law. One such clause in the 1986 Tax Reform Act raised the effective tax rate insurance companies pay on newly acquired "tax- exempt" bonds. This paper derives an optimal switching strategy between taxable and exempt bonds which reflects the enhanced value of previously purchased exempts relative to those newly acquired.

Tullock, Gordon

PD December 1989. **TI** Accidental Freedom. **AA** University of Arizona. **SR** University of California at Los Angeles Department of Economics Working Paper: 573; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 43. **PR** $2.50. **JE** 042, 411, 112. **KW** Free Trade. Trade Policy. Economic History.

AB The gradual change of England from a weakly mercantilistic state at the time Adam Smith wrote his book to almost pure free trade by 1850 is one of the great examples of the triumph of ideas in history. It is, of course, true that England was already much freer economy than most of the world but, still, the change was very significant. Unfortunately, I am unable to claim similar influence for ideas in the United States. Basically, however, we are more the fortunate product of a series of accidents rather than of careful thought. To explain this, I am going to present a desperately brief and oversimplified account of our history in this area.

Turan, G.

TI On the Performance of On-Line Algorithms for Partition Problems. **AU** Faigle, Ulrich; Kern, W.; Turan, G.

Turnovsky, Stephen J.

PD June 1988. **TI** The Choice of Monetary Instrument in Two Interdependent Economies Under Uncertainty. **AU** Turnovsky, Stephen J.; d'Orey, Vasco. **AA** Turnovsky: University of Washington. d'Orey: Universidade Nova de Lisboa. **SR** National Bureau of Economic Research Working Paper: 2604; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 12. **PR** $2.00. **JE** 311, 411, 026. **KW** Monetary Policy. Nash Equilibrium. Bimatrix Game.

AB This paper analyzes the choice of monetary instrument in a stochastic two country setting where each country's set of monetary policy instruments includes both the money supply and the interest rate. It shows how the optimal choice of instrument is determined in two stages. First, for each pair, the minimum welfare cost for each economy is determined. This defines a pair of payoff matrices and the second stage involves determining the Nash equilibrium for this bimatrix game. In our example, for the alternative shocks considered, a dominant Nash equilibrium is always obtained.

Uctum, Merih

PD August 1989. **TI** Exchange Rate Determination with Bank Financed Investment. **AU** Uctum, Merih; Wickens, M. R. **AA** Uctum: Universite Laval, Quebec. Wickens: University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8917; Department of Economics, University of Southampton, Southampton S09 5NH, ENGLAND. **PG** 24. **PR** no charge. **JE** 431, 313, 315, 132. **KW** Exchange Rates. Monetary Shock. Foreign Capital. Investment.

AB This paper analyzes the effects of monetary shocks in the determination of exchange rates in economies where banks play a central role in providing finance for domestic investment and in international capital transactions, the latter being due to restrictions on non-bank access to foreign capital. This is a situation that prevails in many countries, both developed and developing. For countries like this the standard models of exchange rate determination are not strictly appropriate. As there are six state variables, a rational expectations simulation model is constructed and is used to carry out the dynamic analysis.

Udell, Gregory F.

TI The Pricing of Retail Deposits: Concentration Versus Information. **AU** Saunders, Anthony; Udell, Gregory F.

Usher, Dan

PD October 1989. **TI** Six Models of Advertising Welfare. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 756; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 32. **PR** $3.00 Canada and U.S.; $3.50 Foreign. **JE** 531, 611, 511, 514. **KW** Advertising. Monopoly. Market Power.

AB The incentive to advertise is a consequence of monopoly power, for there is nothing to gain from advertising by a firm that can sell its entire output at an invariant market price. Advertising is expenditure by a firm to increase the elasticity of demand for its product or to shift the demand curve to the right. This article is an examination of six possible reasons with different consequences for the welfare of the representative person.

van Damme, Eric

PD September 1989. **TI** Alternating Bid Bargaining with a Smallest Money Unit. **AU** van Damme, Eric; Selten, Reinhard; Winter, Eyal. **AA** van Damme and Selten: University of Bonn. Winter: University of Bonn and Hebrew University. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-253; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 15. **PR** no charge. **JE** 022. **KW** Bargaining Model. Subgame Perfect. Bargaining.

AB In a seminal paper, Ariel Rubinstein has shown that impatience implies determinateness of the 2-person bargaining problem. In this note we show that this result depends also on the assumption that the set of alternatives is a continuum. If the pie can be divided only in finitely many different ways, (for example, because the pie is an amount of money and there is a smallest money unit), any partition can be obtained as the result of a subgame perfect equilibrium if the time interval between successive offers is sufficiently small.

Van der Ploeg, Frederick

PD August 1989. **TI** Fiscal Aspects of Monetary Integration in Europe. **AA** Tilburg University. **SR** Centre for Economic Policy Research Discussion Paper: 340; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 36. **PR** $4.00. **JE** 431, 432, 411, 321. **KW** Monetary Integration. Fiscal Policy. Policy Coordination. Exchange Rates.

AB An adverse supply shock hits a two-country Mundell-Fleming world and causes unemployment and a higher cost of living. The optimal fiscal policies under noncooperative and under international policy coordination are then contrasted under three alternative regimes: floating exchange rates with hegemony (such as the EMS), and fixed exchange rates with symmetry (such as the EMU). The welfare loss depends on unemployment, real income and budgetary imbalance. There is also an examination of the effects of economic integration ("1992"), of indexation of wages to the cost of living, and of interactions between Europe and the US. The results shed some

light on the recent proposals of the Delors Committee for economic and monetary union in Europe.

van Hoesel, C. P. M.

PD March 1989. **TI** Preemptive Scheduling on a Hypercube. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: 89560-OR; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 11. **PR** no charge. **JE** 213. **KW** Hypercube System. Scheduling. Processors Network. Multiprogramming. Algorithms.

AB We consider the problem of scheduling n jobs on a D-dimensional hypercube system of processors. Each job j is given a processing time p(j) and requires a subhypercube of processors of dimension d(j). Jobs may be preempted. An 0(nlogn) algorithm is presented to decide whether the jobs can be scheduled within a given deadline T. Furthermore we present tight bounds on the number of preemptions that is generated by our algorithm.

Varian, Hal R.

PD July 1989. **TI** Sequential Provision of Public Goods. **AA** University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-17; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 12. **PR** no charge. **JE** 024, 026. **KW** Public Goods. Free Rider. Sequential Games. Stackelberg Equilibrium.

AB I consider the private provision of public goods when agents are able to make sequential contributions rather than simultaneous contributions. I show that this tends to exacerbate the free-rider problem in the sense that the amount of the public good provided under sequential contributions is always less under simultaneous contribution.

PD August 1989. **TI** Monitoring Agents with Other Agents. **AA** University of Michigan. **SR** University of Michigan Center for Research on Economic and Social Theory Working Paper: 89-18; Department of Economics, University of Michigan, Ann Arbor, Michigan 48109. **PG** 26. **PR** no charge. **JE** 022. **KW** Incentives. Principal-Agent Theory. Monitoring.

AB I investigate the multiple agency problem when agents can monitor the performance of other agents. A particularly interesting incentive scheme of this sort has been used by the Grameen Bank of Bangladesh and I use this example to investigate some general questions involving group incentive schemes. For example, I show that a principal prefers a monitor who can reduce the costs of desirable actions rather than increase the cost of desirable actions. I also consider when it is beneficial to the principal for agents to mutually insure each other. Finally, I examine a sequential incentive plan in which agents form a group and first serve as monitors and later are monitored by other agents.

Velasco, Andres

PD November 1989. **TI** The Basic Macroeconomics of Debt Swaps. **AU** Velasco, Andres; Larrain, Felipe. **AA** Velasco: New York University and CIEPLAN. Larrain: Harvard University and Catholic University of Chile. **SR** New York University Economic Research Reports: 89-31; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 36. **PR** none. **JE** 431, 433, 322, 321. **KW** International Debt. Debt-Equity Swaps. Fiscal Deficits. Inflation. Exchange Rates.

AB In any external debt swap, a country must surrender an asset in return for having a liability extinguished. Typically, the external liability is the government's, while the domestic assets available for swapping belong to the private sector. Hence, the government must gain control of these privately owned resources-whether by taxing them away, or purchasing them with money or bonds. This crucial aspect of debt conversion operations has so far been neglected in the literature.

Vila, Jean-Luc

TI Grandfather Clauses and Optimal Portfolio Revision. **AU** Tuckman, Bruce; Vila, Jean-Luc.

Villa, P.

PD 1989. **TI** The Price-Wage Loop in France Since the Beginning of the Century. **AA** INSEE. **SR** Unite de Recherche Document de Travail ENSAE/INSEE: 8910; INSEE, Unite de Recherche, 18 Bd. Adolphe Pinard, 75675 Paris cedex 14, FRANCE. **PG** 49. **PR** no charge. **JE** 044, 611, 023. **KW** Phillips Curve. Monopoly. Competition. Prices. Wages.

AB We characterize the regime of prices and wages during the 20th century in France. The econometrical analysis of the wage-price loop, formalized by a model of conflict or by a Phillips curve, shows that the interwar period is a turning point. On the price side, it can be observed a gradual evolution from the competitive regime to the oligopolistic regime. Econometrically speaking, the indexation of wages and prices and the lags have increased. However, since the second world war, two facts come to the surface. First, prices have been linked to the total wage costs including salaries, labor productivity and social contributions of the firms. Secondly, the inflationary illusion has almost disappeared.

Villanacci, Antonio

TI Real Indeterminacy in Incomplete Financial Market Economies without Aggregate Risk. **AU** Siconolfi, Paolo; Villanacci, Antonio.

Vines, David

TI Wealth Targets, Exchange Rate Targets and Macroeconomic Policy. **AU** Blake, Andrew; Vines, David; Weale, Martin.

TI Food Subsidies and Inflation in Developing Countries: A Bridge Between Structuralism and Monetarism. **AU** Srinivasan, T. G.; Parkin, Vincent; Vines, David.

Vishny Robert W.

TI Increasing Returns, Durables and Economic Fluctuations. **AU** Murphy, Kevin M.; Shleifer, Andrei; Vishny Robert W.

Vishny, Robert

TI Do Managerial Objectives Drive Bad Acquisitions?. **AU** Morck, Randall; Shleifer, Andrei; Vishny, Robert.

Vives, Xavier

TI Competition in Spanish Banking. **AU** Caminal, Ramon; Gual, Jordi; Vives, Xavier.

Voigt, Bernd

TI Fast Growing Functions based on Ramsey Theorems. **AU** Promel, Hans Jurgen; Thumser, Wolfgang; Voigt, Bernd.

TI Aspects of Ramsey-Theory II: Arithmetic Progressions. **AU** Promel, Hans Jurgen; Voigt, Bernd.

von Ungern-Sternberg, Thomas

PD September 1989. **TI** Rationing in Restaurants. **AA** University of Lausanne. **SR** University de Lausanne Cahiers de Recherches Economiques: 8903; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. **PG** 10. **PR** no charge. **JE** 635, 611, 022. **KW** Restaurants. Prices. Profits.
AB This paper provides an explanation why consumers are frequently rationed at certain types of restaurants, bars, cafes, etc.. The argument is as follows: The more expensive the restaurant is, the lower will be the consumers consumption per unit of time spent in the restaurant. Restaurants have a fixed seating capacity. When the capacity constraint becomes binding they will set their prices so as to maximize their profits per unit of time the customers spend in the restaurant. It may well be the case, that there is excess demand at this profit maximizing price.

PD September 1989. **TI** Multibrand Competition in a "Circular Road" Dialogue. **AA** University of Lausanne. **SR** University de Lausanne Cahiers de Recherches Economiques: 8904; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. **PG** 18. **PR** no charge. **JE** 022, 611. **KW** Microeconomic Theory. Monopolistic Competition.
AB The purpose of this paper is to develop a model of monopolistic competition that is essentially similar to the "circular road" model, but which allows for multibrand competition. Many economists consider it a major weakness of the circular road model, that it allows only localized competition. The model presented here may thus be a welcome alternative.

PD September 1989. **TI** Strategic Foreign Exchange Management. **AU** von Ungern-Sternberg, Thomas; von Weizsaecker, C. C. **AA** von Ungern-Sternberg: University of Lausanne. von Weizsaecker: University of Cologne. **SR** University de Lausanne Cahiers de Recherches Economiques: 8905; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH - Dorigny, CH-1015 Lausanne/SWITZERLAND. **PG** 24. **PR** no charge. **JE** 441, 442, 411. **KW** Hedging. Market Structure. Foreign Exchange.
AB This paper argues that it is possible to advise firms on how to hedge against foreign exchange risks only if one has detailed knowledge of the competitive environment they work in. To illustrate this we compare firms' hedging requirements in a number of different standard industrial organizations models, in particular, the Cournot-model, perfect competition and monopolistic competition.

von Weizsaecker, C. C.

TI Strategic Foreign Exchange Management. **AU** von Ungern-Sternberg, Thomas; von Weizsaecker, C. C.

von zur Muehlen, Peter

TI Co-integration: Is it a Property of the Real World?. **AU** Swamy, P. A. V. B.; von zur Muehlen, Peter; Mehta, J. S.

Wadhwani, Sushil B.

TI Risk, Gordon's Growth Model, and the Predictability of Stock Market Returns. **AU** Attanasio, Orazio P.; Wadhwani, Sushil B.

TI Insider Forces and Wage Determination. **AU** Nickell, Stephen; Wadhwani, Sushil B.

TI Employment Determination in British Industry: Investigations Using Micro-Data. **AU** Nickell, Stephen; Wadhwani, Sushil B.

TI The Effects of Unions on Organizational Change, Investment and Employment: Evidence from WIRS. **AU** Machin, Stephen J.; Wadhwani, Sushil B.

Waite, Linda J.

TI The Consequences for Women of the Availability and Affordability of Child Care. **AU** Leibowitz, Arleen; Waite, Linda J.

Wang, Jinchang

TI Gainfree Leontief Flow Problems. **AU** Jeroslow, Robert G.; Martin, R. Kipp; Rardin, Ronald L.; Wang, Jinchang.

Weale, Martin

TI Wealth Targets, Exchange Rate Targets and Macroeconomic Policy. **AU** Blake, Andrew; Vines, David; Weale, Martin.

TI British Economic Growth, 1870-1913: Facts and Artifacts. **AU** Solomou, Solomos; Weale, Martin.

Weber, Guglielmo

TI Consumption, Productivity and the Interest Rate. **AU** Attanasio, Orazio P.; Weber, Guglielmo.

Weber, Shlomo

TI Sequential Arbitration Procedures. **AU** Brams, Steven J.; Kilgour, D. Marc; Weber, Shlomo.

PD September 1989. **TI** The Theory of Cost Sharing. **AU** Weber, Shlomo; Wiesmeth, Hans. **AA** Weber: York University. Wiesmeth: University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-257; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 26. **PR** no charge. **JE** 024, 022. **KW** Public Good. Equilibrium Allocations. Core.
AB This paper investigates efficiency and equitability issues given a cost sharing method theta in an economy with a public commodity. We introduce the basic concept of a theat-Lindahl equilibrium and study the set of all these particular equilibrium allocations. It then turns out that this set is contained in the core of the economy. Finally, we devise a mechanism to implement theta-Lindahl equilibria.

Weiner, Robert J.

TI Multinational Corporations, Transfer Prices, and Taxes: Evidence from the U.S. Petroleum Industry. **AU** Bernard,

Jean-Thomas; Weiner, Robert J.

Whalley, John

PD May 1988. **TI** Endogenous Participation in Agricultural Support Programs and Ad Valorem Equivalent Modelling. **AU** Whalley, John; Wigle, Randall M. **AA** University of Western Ontario. **SR** National Bureau of Economic Research Working Paper: 2583; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** $2.00. **JE** 713, 421, 422. **KW** Agricultural Supports. Trade Policy. Trade Negotiations. Agriculture.

AB This paper argues that a price wedge treatment of agricultural supports can seriously misrepresent their welfare and quantity effects. We make our point by focusing on pre-1985 US wheat programs, but features of programs in many other countries lead to comparable problems with the ad valorem approach. This line of argument raises questions over the current approach in the multilateral trade negotiations of negotiating on producer subsidy equivalents (PSEs), or some other subsidy-like measure.

TI Do Developing Countries Lose from the MFA?. **AU** Trela, Irene; Whalley, John.

Whang, Yoon-Jae

TI Additive Interactive Regression Models: Circumvention of the Curse of Dimensionality. **AU** Andrews, Donald W. K.; Whang, Yoon-Jae.

White, Alice P.

PD December 1989. **TI** The Evolution of the Thrift Industry Crisis. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 101; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Wash., DC 20551. **PG** 22. **PR** no charge. **JE** 314, 613. **KW** Thrift Industry. Regulation. Public Policy. Financial Institutions.

AB The evolution of the thrift industry since the 1960s is traced, with emphasis on the events and actions that contributed to the current crisis. Adopting a roughly chronological approach, the industry is followed through the regulation of liabilities in the 1960s and the deregulation of liabilities and asset powers in the 1970s and 1980s to today's asset quality problems. Public policy responses to each succeeding crisis are examined. The origins of the current crisis are found in the "solutions" to these earlier sets of problems, in part as a result of public policies that were designed to buy time rather than address fundamental imbalances in thrift portfolios.

Wickens, M. R.

TI Testing for Speculative Bubbles in Exchange Rates. **AU** Smith, P. N.; Wickens, M. R.

TI Exchange Rate Determination with Bank Financed Investment. **AU** Uctum, Merih; Wickens, M. R.

TI International CAPM: Why Has it Failed?. **AU** Thomas, S. H.; Wickens, M. R.

PD October 1989. **TI** Non-Parametric Estimates of the Foreign Exchange and Equity Risk Premia and Tests of Market Efficiency. **AU** Wickens, M. R.; Thomas S. H. **AA** University of Southampton. **SR** University of Southampton Discussion Paper in Economics and Econometrics: 8915; Department of Economics, University of Southampton, Southampton S09 5NH ENGLAND. **PG** 32. **PR** no charge. **JE** 431, 313. **KW** Risk Premium. Exchange Rates. Stock Prices. Efficient Markets.

AB It is widely thought that neither the foreign exchange markets nor equity markets are efficient in the sense that tests of the unbiasedness hypothesis for the former, and of the present value relationship for the latter, typically lead to rejection. Interest has therefore turned to the question of whether or not a risk premium exists. This paper provides nonparametric estimates of the foreign exchange and equity risk premia, i.e. estimates that do not depend on any particular model of risk unlike, say, the ARCH model. The average risk premia for three exchange rates and for four stock markets over the period 1973-88 are shown to be quite small. In contrast, considerable variation is discovered in these risk premia during this period.

TI Non-Parametric Estimates of the Foreign Exchange and Equity Risk Premia and Tests of Market Efficiency. **AU** Thomas, S. H.; Wickens, M. R.

Wiesmeth, Hans

TI The Theory of Cost Sharing. **AU** Weber, Shlomo; Wiesmeth, Hans.

Wigle, Randall M.

TI Endogenous Participation in Agricultural Support Programs and Ad Valorem Equivalent Modelling. **AU** Whalley, John; Wigle, Randall M.

Wilcoxen, Peter J.

TI Environmental Regulation and U.S. Economic Growth. **AU** Jorgenson, Dale W.; Wilcoxen, Peter J.

Williams, Mark D.

TI Firm-Level Productivity and Management Influence: A Comparison of U.S. and Japanese Automobile Producers. **AU** Lieberman, Marvin B.; Lau, Lawrence J.; Williams, Mark D.

Winter, Eyal

PD August 1989. **TI** An Axiomatization of the Stable and Semistable Demand Vectors by the Reduced Game Property. **AA** University of Bonn. **SR** Universitat Bonn Sonderforschungsbereich 303 - Discussion Paper: A-254; Sonderforschungsbereich 303 an der Universitat Bonn, Adenauerallee 24-42, D-5300 Bonn 1, DEUTSCHLAND. **PG** 13. **PR** no charge. **JE** 022, 026. **KW** Demand Vectors. Payoffs. Noncooperative Game. Reduced Game.

AB We use the approach of the reduced game property and its converse to characterize the sets of stable and semistable demand vectors. It is shown that although these two concepts are generally very different their axiomatizations are almost the same. Regarding the semistable demand vector we correspond to Selten (1981) Noncooperative model which predicts these demand vector and discuss the role the reduced game property plays in equilibrium strategies of this model.

TI The Multilinear Extension and the Coalition Value. **AU** Owen, Guillermo; Winter, Eyal.

TI Alternating Bid Bargaining with a Smallest Money Unit. **AU** van Damme, Eric; Selten, Reinhard; Winter, Eyal.

Winters, Alan L.

PD July 1989. **TI** The Effects of Voluntary Export Restraints on the Prices of UK Imports of Footwear. **AA** University of Wales. **SR** Centre for Economic Policy Research Discussion Paper: 324; 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** 422, 421, 431. **KW** Voluntary Export Restraints. Exports. Trade Barriers.

AB Voluntary export restraints allow exporters to increase the prices they charge importers for supplying goods. This paper quantifies this effect for the UK restrictions on imports of footwear imposed in the later 1970's, by isolating changes in the relative prices of exports to the UK and to other markets. Where exporters appear to have little ability to switch supplies between markets the comparisons are made after allowing for movements in real exchange rates. Where, on the other hand, exporters can substitute easily between markets, the comparisons refer to nominal prices. VERs increased UK footwear import prices by 15%-25% for the major restricted suppliers and in 1980 cost the UK economy at least 25 million pounds.

Wirjanto, Tony S.

PD July 1989. **TI** Testing the Permanent Income Hypothesis: The Evidence from Canadian Data. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 755; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 26. **PR** $3.00 Canada and U.S.; $3.50 Foreign. **JE** 921, 132. **KW** Permanent Income Hypothesis. Consumption. Life-Cycle Model.

AB In this paper I investigate whether there are variants of the permanent income model which are consistent with quarterly, seasonally unadjusted post-war Canadian data. The analysis is based on a model in which a constant proportion of the population in the economy follows the rule of thumb of consuming their current income only. This proportion is estimated to be about 20 percent, suggesting that a large segment of the population in the economy behaves in the way predicted by the permanent income hypothesis. This result is robust to time averaging bias as well as to a variety of other data problems. The same result obtains for a more general model in which the real interest rate is time-varying and in which the utility function is nonseparable in consumption and the stock of durable goods.

Wolak, Frank A.

TI Strategic Use of Antidumping Law to Enforce Tacit International Collusion. **AU** Staiger, Robert W.; Wolak, Frank A.

Wolf, Charles Jr

PD January 1989. **TI** Military Dimensions of Communist Systems: Findings and Implications. **AU** Wolf, Charles Jr.; Zycher, Benjamin. **AA** Rand Corporation. **SR** Rand Report: R-3629; The Rand Corporation, 1700 Main Street, PO Box 2138, Santa Monica, CA 90406-2138. **PG** 18. **PR** no charge. **JE** 114, 052. **KW** Military Sector. Defense Spending. Communist System.

AB This report is based on the extensive empirical work reported in R-3593, the underlying hypothesis of which is that Marxist-Leninist systems, compared with non-communist systems, tend to have larger and more developed military sectors relative to nonmilitary sectors. The authors consider the reasons communist systems may be inclined toward more developed military dimensions, summarize the methods and empirical findings of the study, and consider the implications of the analysis for both U.S. policy toward, and further analysis of, communist systems.

PD April 1989. **TI** Long-Term Economic and Military Trends, 1950-2010. **AU** Wolf, Charles Jr.; Hildebrandt, Gregory G.; Kennedy, Michael; Henry, Donald P.; Terasawa, Katsuaki; Yeh, K. C.; Zycher, Benjamin; Bamezai, Anil; Hayashi, Toshiyo. **AA** Rand Corporation. **SR** Rand Note: N-2757; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 51. **PR** not available. **JE** 114, 123. **KW** Military Spending. Defense Spending. National Defense.

AB This note presents estimates of certain key economic and military trends for the period 1950-2010 for 15 countries (The United States, The Soviet Union, Japan, China, West Germany, The United Kingdom, France, India, South Korea, Taiwan, Turkey, Egypt, Brazil, Argentina, and Mexico). These economic and military trends are summarized in terms of three major indicators--gross national product, annual military spending, and accumulation of military capital stocks. The time series estimates for each of the three indicators are designed to be internally consistent over time and among the 15 countries.

Wolff, Edward N.

TI Multinational Corporations and Productivity Convergence in Mexico. **AU** Blomstrom, Magnus; Wolff, Edward N.

Wolinsky, Asher

TI Renegotiation-Proof Implementation and Time Preferences. **AU** Rubinstein, Ariel; Wolinsky, Asher.

Wolken, John D.

TI The National Survey of Small Business Finances: Description and Preliminary Evaluation. **AU** Cox, Brenda G.; Elliehausen, Gregory E.; Wolken, John D.

Wolpin, Kenneth I.

TI Credit Market Constraints, Consumption Smoothing and the Accumulation of Durable Production Assets in Low-Income Countries; Investments in Bullocks in India. **AU** Rosenzweig, Mark R.; Wolpin, Kenneth I.

Wolsey, Lawrence A.

TI Time Indexed Formulations of Non-Preemptive Single-Machine Scheduling Problems. **AU** Sousa, Jorge P.; Wolsey, Lawrence A.

Woodford, Michael

TI Equilibrium Models Displaying Endogenous Fluctuations and Chaos: A Survey. **AU** Boldrin, Michele; Woodford, Michael.

Wright Randall

TI Why is Automobile Insurance in Philadelphia so Damn Expensive?. **AU** Smith, Eric; Wright Randall.

Yen, Ping-Yuan

PD April 1989. **TI** Egalitarian-Equivalent Cost-Sharing and the M.D.P. Processing for the Provision of a Public Good. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8911; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 21. **PR** no charge. **JE** 024, 021. **KW** Public Good. Social Welfare. Welfare Function. Free Rider.

AB The paper demonstrates that the unique egalitarian-equivalent allocation of an economy with one public good (1) is a constrained maximum of an appropriately defined social welfare index, (2) admits explicit free-riding, i.e., there exists an agent who benefits from the provision of the public good and can afford at least some of it but bears zero cost of its provision, (3) admits implicit free-riding, i.e., there exists an agent who benefits from the additional provision of the public goods and can afford some of it but bears zero additional cost or even gains a benefit and (4) is a solution of a special version of the well-known M.D.P. process.

Younes, Yves

PD May 1989. **TI** Indeterminacy of Competitive Equilibrium in Incomplete Market Structures with Financial Assets as an Extreme Form of Market Coordination Breakdown. **AA** CEPREMAP. **SR** CEPREMAP Discussion Paper: 8917; CEPREMAP, 142 rue du Chevaleret, 75013 Paris, FRANCE. **PG** 50. **PR** 25 ff. **JE** 611, 021. **KW** Market Coordination. Incomplete Market. Financial Assets. Market Power.

AB Market coordination breakdowns can be formulated in terms of Incomplete Market Structures, whatever is the assumption made about market power (monopoly or competition). When the assumption of competition is made, and financial assets generate an incomplete market structure, there are, generically, an infinite number of equilibria. It is shown that after embedding the model of incomplete markets in a more general model based on the absence of double coincidence of wants, a game theoretic concept of equilibrium, like the Core, allows us to prove an equivalence theorem, i.e., to show that indeterminacy is caused by the fact that the returns of financial assets have no direct utility.

Zaidi, Iqbal

TI Monetary Policy in the Philippines During Periods of Financial Crisis and Changes in Exchange Rate Regime: Targets, Instruments and the Stability of Money Demand. **AU** Goldsbrough, David; Zaidi, Iqbal.

Zame, William R.

TI Determinacy of Equilibrium in Large-Square Economies. **AU** Kehoe, Timothy J.; Levine, David K.; Mas-Colell, Andrew; Zame, William R.

PD December 1989. **TI** Asymptotic Behavior of Asset Markets, I: Asymptotic Inefficiency. **AA** University of California, Los Angeles. **SR** University of California at Los Angeles Department of Economics Working Paper: 574; Department of Economics, UCLA, 2263 Bunche, Los Angeles, CA 90024. **PG** 58. **PR** $2.50. **JE** 313, 021, 022. **KW** Asset Market. Equilibrium Allocation.

AB This paper presents a model of an asset market with an infinite number of states of the world. Equilibria exist (under standard assumptions) provided that assets are denominated in a single numeraire commodity. For a given sequence of assets, necessary and sufficient conditions are established that the equilibria of the finite asset markets necessarily converge to an efficient allocation or to an equilibrium allocation of the underlying complete contingent claims market. The set of assets failing this condition is residual: it contains a countable intersection of dense, open sets.

Zanfei, Antonello

PD July 1989. **TI** Patterns of Collaborative Agreements and Innovation in the U.S. Telecommunications Industry. **AA** Universita L. Bocconi. **SR** Stanford Center for Economic Policy Research Discussion Paper Series: 165; 100 Encina Commons, Stanford University, Stanford, CA 94305. **PG** 32. **PR** NC for members of non-profit institutions, $3.00 otherwise. **JE** 635, 621, 611. **KW** Innovation. Industrial Organization. Joint Ventures. Telephones. Cooperative Agreements.

AB This paper focuses on cooperative agreements between firms as a vehicle for innovation in the U.S. telephone service industry. It is argued that institutional evolution on the US market has focused firms' collaborative activity in specific directions. First, this paper outlines certain institutional factors affecting firms' possibilities of exploiting technical economies of scope.

Zemel, Eitan

TI The Complexity of Eliminating Dominated Strategies. **AU** Gilboa, Itzhak; Kalai, Ehud; Zemel, Eitan.

Zemsky, Peter

TI Collusion in Second Price Auctions with Heterogeneous Bidders. **AU** Mailath, George J.; Zemsky, Peter.

Zezza, Gennaro

TI A Simple Real Stock Flow Model Illustrated with the Danish Economy. **AU** Godley, Wynne; Zezza, Gennaro.

Zhang, Junsen

PD October 1989. **TI** Some Economic Implications of Marriage: Existence of Equilibrium, Comparative Statics and Efficiency. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 189; Department of Economics, Australian National University, P.O. Box 4, Canberra A.C.T. 2601, AUSTRALIA. **PG** 60. **PR** no charge. **JE** 022. **KW** Marriage. Nash Equilibrium. Comparative Statics.

AB This paper discusses some economic implications of marriages of children. Of particular interest is the strategic behavior of the parents of the children. A simple two-period model with very general assumptions is developed and some interesting results are obtained. This essay consists of four parts. It is first shown that a symmetric Nash equilibrium does not exist unless constraints are imposed. The second part of the essay looks at how one set of parents will react to the actions of another set by adjusting the level of bequests to sons and daughters. The third part examines the efficiency of a Nash equilibrium when it exists and proves that a Nash equilibrium is Pareto inefficient.

Zhou, Lin

TI Risk Aversion in Nash Bargaining Problem with Risky

Outcomes and Risky Disagreement. **AU** Safra, Zvi; Zhou, Lin; Zilcha, Itzhak.

Zilcha, Itzhak

TI Risk Aversion in Nash Bargaining Problem with Risky Outcomes and Risky Disagreement. **AU** Safra, Zvi; Zhou, Lin; Zilcha, Itzhak.

PD August 1989. **TI** Efficiency in Economic Growth Models with Stochastic Production. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 33-89; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 16. **PR** no charge. **JE** 111, 023. **KW** Infinite Horizon. Growth Theory. Production. Consumption.

AB We consider an infinite horizon economy with stochastic production and consumption. Two types of efficiency for feasible production-consumption programs are defined, using the first and second degree stochastic dominance. A complete characterization of inefficiency (of type I) is obtained. Equivalence between type II efficiency and certain "optimality" is proved when the number of states of nature is finite in each date.

Zimmerman, Christian Michel

TI Loyers et Taux Hypothecaire: Analyse et Resultats Empiriques. **AU** Lambelet, Jean-Christian; Zimmerman, Christian Michel.

Zou, Liang

PD February 1989. **TI** Threat-Based Incentive Mechanisms Under Moral Hazard and Adverse Selection. **AA** Universite Catholique de Louvain. **SR** Universite Catholique de Louvain CORE Discussion Paper: 8909; Universite Catholique de Louvain, Voie du Roman Pays, 34, B-1348 Louvain-la-Nueve, BELGIUM. **PG** 28. **PR** no charge. **JE** 022. **KW** Incentives. Principal-Agent Theory. Moral Hazard. Adverse Selection.

AB We characterize and show the existence of (asymptotically) optimal threat based incentive mechanisms in a principal-agent environment with simultaneous moral hazard and adverse selection. Under certain conditions, such mechanisms approximate an optimal solution derived under pure adverse selection. This is an extension of the example of Mirrlees (1974) where threat based incentive contracts approximate a Pareto optimal solution. Our result, however, seems to provide deeper insight into why in practice, agents volutarily help establish (e.g. pledging collaterals) threat based contractual relationships. Namely, we show that it is optimal for the principal to let the agent self-select a target penalty level and enjoy the full private information rent.

Zycher, Benjamin

TI Military Dimensions of Communist Systems: Findings and Implications. **AU** Wolf, Charles Jr.; Zycher, Benjamin.

PD February 1989. **TI** Foreign Policy Benefits from Subsidization of Trade with Eastern Europe. **AA** Rand Corporation. **SR** Rand Report: R-3566; The Rand Corporation, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90406-2138. **PG** 45. **PR** no charge. **JE** 114, 421. **KW** NATO. Warsaw Pact. Trade Theory.

AB This study examines economic policy tools with which the United States or NATO collectively might reduce the prospective political/military reliability of the non-Soviet Warsaw Pact (NSWP). It argues that growing long-term economic relations between the NSWP and the West could have just such an adverse effect on reliability from the Soviet viewpoint. Since a reduction in NSWP reliability is consistent with a strengthening of deterrence, promotion of growing economic ties with Eastern Europe may serve U.S. and NATO interests.