

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)

Abowd, John M.

PD May 1990. **TI** Product Market Competition, Union Organizing Activity, and Employer Resistance. **AU** Abowd, John M.; Farber, Henry S. **AA** Abowd: Cornell University. Farber: Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 3353; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** \$2.00. **JE** 831, 833, 832. **KW** Unions. Collective Bargaining. Union Threat.

AB We develop and estimate a model of the union's optimal extent of organizing activity that accounts for the decision of employers regarding resistance to union organizing. The central exogenous variable in the analysis is the quantity of quasi-rents per worker available to be split between unions and employers. We measure available quasi-rents per worker as the difference per worker between total industry revenues net of raw materials costs and labor costs evaluated at the opportunity cost of the workers. Using two-digit industry level data for thirty-five U.S. industries for the period 1955 through 1986, we find that both organizing activity and employer resistance to unionization are positively related to available quasi-rents per worker.

PD May 1990. **TI** The NBER Immigration, Trade, and Labor Markets Data File. **AA** Cornell University. **SR** National Bureau of Economic Research Working Paper: 3351; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** \$2.00. **JE** C82, F22. **KW** Immigration. International Trade. Macro Data.

AB The NBER Immigration, Trade, and Labor Markets Data Files were developed from public data sources to facilitate industry-based and area-based research on the effects of international trade and immigration on labor markets in the United States. The industry data files contain shipments, a shipments deflator, value added, employment, payroll, hours, real capital stock, imports, exports, unionization, and immigrant ratios for 450 four-digit (1972 Standard Industrial Classification) manufacturing industries.

PD May 1990. **TI** The Effects of International Competition on Collective Bargaining Outcomes: A Comparison of the United States and Canada. **AU** Abowd, John M.; Lemieux, Thomas. **AA** Abowd: Cornell University. Lemieux: Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 3352; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 38. **PR** \$2.00. **JE** J52, J53, F14, E24. **KW** Exports. Collective Bargaining. International Trade.

AB We study the effects of import and export competition on collectively bargained wage settlements and bargaining unit

employment from the sixties to the mid-eighties for the United States and Canada. Both value-based and price based measures of international competition are considered. We distinguish between the expected effects of increased international trade on new collective bargaining agreements and the realized effects over the life of existing agreements. Using value-based trade measures, the estimated effect of an increase in import domestic market share, holding constant the rate of growth of the domestic market, is negative for employment in both countries and exceeds the effect of a comparable change in the size of the domestic market. The import effect on wage rates is also negative for the United States but not for Canada.

Abreu, Dilip

PD December 1989. **TI** Virtual Implementation in Nash Equilibrium. **AU** Abreu, Dilip; Sen, Arunava. **AA** Abreu: Harvard University and Stanford University. Sen: Indian Statistical Institute, Delhi. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-13; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 41. **PR** not available. **JE** D71, C70. **KW** Social Choice. Lotteries. Nash Implementation. Nash Equilibrium.

AB Reformulate the classical implementation problem a la Maskin (1977) as follows. Think of a social choice correspondence as a mapping from preference profiles to lotteries over some finite set of alternatives. Say that a social choice correspondence f is virtually implementable in Nash equilibrium if for all $\epsilon > 0$ there exists a game form G such that for all preference profiles θ , there exists a bijection (τ sub θ) between $f(\theta)$ and the set of Nash equilibrium outcomes of G under the profile θ such that the distance between x and (τ sub θ (x)) is less than ϵ for all (x an element of $f(\theta)$). Then (under a mild domain restriction) the following result is true: In societies with at least three individuals all social choice correspondences are virtually implementable in Nash equilibrium. This proposition should be contrasted with Maskin's (1977) classic characterization, according to which the non-trivial requirement of monotonicity is a necessary condition for exact implementation in Nash equilibrium.

PD March 1990. **TI** Information and Timing in Repeated Partnerships. **AU** Abreu, Dilip; Milgrom, Paul; Pearce, David. **AA** Abreu: Harvard University and Stanford University. Milgrom: Stanford University. Pearce: Yale University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-14; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 44. **PR** not available. **JE** C71, D83, D82. **KW** Repeated Games. Monitoring. Cooperation.

Partnership.

AB In a repeated partnership game with imperfect monitoring, we distinguish among the effects of (1) reducing the interest rate, (2) shortening the period over which actions are held fixed, and (3) shortening the lag with which accumulated information is reported. All three changes are equivalent in games with perfect monitoring. With imperfect monitoring, reducing the interest rate always increases the possibilities for cooperation, but the other two changes always have the reverse effect when the interest rate is small.

PD February 1991. **TI** Virtual Implementation in Iteratively Undominated Strategies: Complete Information. **AU** Abreu, Dilip; Matsushima, Hitoshi. **AA** Abreu: Princeton University and Stanford University. Matsushima: University of Tsukuba and Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-91-1; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 32. **PR** not available. **JE** 025. **KW** Social Choice. Incentives. Implementation.

AB No abstract available.

PD February 1991. **TI** Virtual Implementation in Iteratively Undominated Strategies: Incomplete Information. **AU** Abreu, Dilip; Matsushima, Hitoshi. **AA** Abreu: Princeton University. Matsushima: University of Tsukuba and Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-91-2; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 38. **PR** not available. **JE** 025. **KW** Social Choice. Incentives. Implementation.

AB No abstract available.

Aizenman, Joshua

PD June 1990. **TI** Externalities, Incentives, and Economic Reforms. **AU** Aizenman, Joshua; Isard, Peter. **AA** Aizenman: Dartmouth College. Isard: International Monetary Fund. **SR** National Bureau of Economic Research Working Paper: 3395; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$2.00. **JE** H60, H11, E61, D62. **KW** Externalities. Policy Coordination. Taxes.

AB The paper emphasizes the role of institutions and incentives in the presence of externalities. An economy with multiple public decision makers is likely to experience "overspending," "undertaxing," "overborrowing," and "overinflation" unless effective institutions exist for overcoming coordination failure. External financing may weaken incentives for adjustment over the longer run unless assistance is made conditional on fundamental institutional reforms. The paper also analyzes reforms that strengthen incentives to provide effort. Uncertainty regarding future taxes reduces present effort and the responsiveness of output to market signals. In addition, the paper addresses the adverse effects of bank insurance and soft budget constraints.

PD September 1990. **TI** Capital Controls, Collection Costs, and Domestic Public Debt. **AU** Aizenman, Joshua; Guidotti, Pablo E. **AA** Aizenman: Dartmouth College. Guidotti: International Monetary Fund. **SR** National Bureau of Economic Research Working Paper: 3443; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 27. **PR** \$2.00. **JE** 322, 323, 321. **KW** Public Debt. Capital Controls. Taxes. Tax

Policy.

AB The implications of a large public debt for the implementation of capital controls for an economy where tax revenue collection is costly are examined. Conditions are analyzed under which policy makers will resort to capital controls to reduce the cost of recycling domestic public debt. The linkages between a costly tax collection mechanism, capital controls, and domestic government debt are explored in terms of a two period model of optimal taxation. Numerical simulations are provided to illustrate how capital controls are linked to different domestic public debt levels and to different degrees of efficiency in tax revenue collection.

Akerlof, George A.

PD June 1990. **TI** Waiting for Work. **AU** Akerlof, George A.; Rose, Andrew K.; Yellen, Janet L. **AA** University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 3385; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 40. **PR** \$2.00. **JE** J31, J64, J21, J22. **KW** Labor Mobility. Unemployment. Wages. Recession.

AB This paper explains upward job mobility and observed patterns of unemployment by skill as an economy recovers from a recession. Skilled unemployment is due to rational waiting by workers looking for long-term jobs when there is a "lock-in" effect. Lock-in occurs if the conditions in the labor market when a worker first accepts a job have a persistent effect on wages. Using longitudinal data, we provide empirical evidence of the cyclical pattern of wages predicted by the theory and also of lock-in.

Alba-Ramirez, Alfonso

PD August 1990. **TI** Job-Finding and Wages when Long-Run Unemployment is Really Long: The Case of Spain. **AU** Alba-Ramirez, Alfonso; Freeman, Richard B. **AA** Alba-Ramirez: University of Malaga. Freeman: Harvard University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3409; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$2.00. **JE** 822, 824, 921. **KW** Unemployment Insurance. Family Status. Households. Unemployment.

AB This paper uses the "Encuesta de Condiciones de Vida Y Trabajo" (ECVT) -- a survey of the labor force activity of over 61,000 persons in Spain in 1985 when unemployment exceeded 20% -- to examine the effect of unemployment insurance (UI) and family status on Long-run joblessness. It finds that (1) duration of joblessness is some 30% longer for those eligible for UI benefits than for those ineligible for UI; (2) the long term unemployed are disproportionately secondary workers for whom the family serves as a form of welfare; (3) hazard rates linking the chances of job finding to duration of unemployment in the 1981-85 period of massive joblessness did not decline with duration; and (4) the length of unemployment spells reduces wages moderately but has a huge effect on the probability that re-employed workers take secondary sector jobs.

Alesina, Alberto

PD August 1990. **TI** Why are Stabilizations Delayed? **AU** Alesina, Alberto; Drazen, Allan. **AA** Alesina: Harvard University and National Bureau of Economic Research. Drazen: Princeton University and Tel Aviv University.

SR University of Western Ontario Papers in Political Economy: 1; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 32. **PR** no charge. **JE** E63, E65, D30, H23. **KW** Stabilization Policy. Socioeconomic Groups. Income Distribution.

AB When a stabilization has significant distributional implications (as in the case of tax increases to eliminate a large budget deficit) different socioeconomic groups with conflicting distributional objectives will attempt to shift the burden of stabilization onto other groups. The process leading to a stabilization becomes a "war of attrition", with each group finding it rational to attempt to wait the others out, and stabilization occurring only when one group concedes and is forced to bear a disproportionate share of the burden of fiscal adjustment. We solve for the expected time of stabilization in a model of "rational" delay based on a war of attrition and present comparative statics results relating the expected time of stabilization to several political and economic variables. We also motivate this approach and its results by comparison to historical episodes.

Aliprantis, Charalambos D.

PD August 1990. **TI** Competitive Equilibria in Overlapping Generations Experiments. **AU** Aliprantis, Charalambos D.; Plott, Charles R. **AA** Aliprantis: Indiana University. Plott: California Institute of Technology. **SR** Caltech Social Science Working Paper: 746; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** not available. **PR** no charge. **JE** 215, 133, 022. **KW** Overlapping Generations. Competitive Equilibrium. Experimental Economics. Prices. Economic Environment.

AB The paper presents the results of four overlapping generations experiments performed at the California Institute of Technology. Overlapping generations markets were created in which each agent had a two period life span. With the exception of the first period, there were eight agents trading in each period; four buyers (two young and two old) and four sellers (two young and two old). Parameters were selected so that a "small" set of equilibria existed. The markets were open for twenty-nine periods with a demand shift occurring at the fifteenth and sixteenth periods. This work provides a method of computing all competitive equilibria for a class of environments - called the opposing shift environments. The main conclusion of the experiments is that the experimental price data converge to near the stationary portions of the equilibria.

Allen, Linda

PD April 1990. **TI** Forebearance and Valuation of Deposit Insurance as a Callable Put. **AU** Allen, Linda; Saunders, Anthony. **AA** Allen: Baruch College, City University of New York. Saunders: New York University. **SR** New York University Salomon Brothers Center Working Paper: S-90-11; 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** not available. **JE** 312, 311. **KW** Deposit Insurance. Bank Regulation. Commercial Banks. Banking. Put Option.

AB Previous research has valued deposit insurance as a put option written by the FDIC and exercisable by bank

stockholders. However, this ignores a key feature of the contract in that, in general, the FDIC both writes and exercises (via closure decisions) the insurance option. Therefore, deposit insurance should be appropriately modelled as a callable put, i.e., a put option where the FDIC retains a valuable call component. Thus the true value of deposit insurance subsidies should be measured as the net difference between the put and call features of the insurance contract. It is shown that only in the special case where the bank owners have a stricter self-closure point than do regulators, can deposit insurance be modelled as a pure put option. Thus previous studies, by ignoring the call feature of the FDIC contract, have tended to exaggerate the size of insurance subsidies, i.e., the value of deposit insu.

Alm, James

TI Fertility and the Personal Exemption: Implicit Pronatalist Policy in the United States. **AU** Whittington, Leslie A.; Peters, H. Elizabeth; Alm, James.

Alogoskoufis, George S.

PD January 1990. **TI** On Error Correction Models: Specification, Interpretation, Estimation. **AU** Alogoskoufis, George S.; Smith, Ron. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 6/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 40. **PR** not available. **JE** 212. **KW** Dynamic Model. Linear Regression Model. Error Correction Model. Nonlinear Restrictions.

AB Error Correction Models (ECMs) have proved a popular organizing principle in applied econometrics, despite the lack of consensus as to exactly what constitutes their defining characteristic, and the rather limited role that has been given to economic theory by their proponents. This paper uses a historical survey of the evolution of ECMs to explain the alternative specifications and interpretations and proceeds to examine their implications for estimation. The various approaches are illustrated for wage equations by application to U.K. labor market data 1855-1987. Our conclusions are that error correction models impose strong and testable non-linear restrictions on dynamic econometric equations, and that they do not obviate the need for modelling the process of expectations formation.

PD January 1990. **TI** Exchange Rate Regimes and the Persistence of Inflation. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 7/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 25. **PR** not available. **JE** 134, 431, 133, 132. **KW** Exchange Rates. Inflation. Monetary Policy. Gold Standard.

AB This paper investigates the relation between the dynamics of inflation and exchange rate regimes. It demonstrates that fixed exchange rate regimes like the international gold standard and the Bretton-Woods gold dollar standard appear to be associated with negligible persistence of inflation in the industrial economies. On the other hand, regimes of managed exchange rates are associated with very high persistence of inflation. The inter-war period is associated with persistent deflation, and the more recent period of managed floating is associated with persistent inflation. The paper uses an overlapping contracts model of inflation to propose that the higher inflation persistence in managed exchange rate regimes is a result of the accommodation of

inflation differentials by exchange rate policy. The evidence does not seem to contradict this hypothesis.

PD April 1990. **TI** On Relative Shocks and Fiscal Policies in a Monetary Union. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 13/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 27. **PR** not available. **JE** 321, 423, 432, 411. **KW** Fiscal Policy. European Monetary Union. Economic Integration. International Monetary System.

AB This paper compares cooperative and decentralized determination of fiscal policy responses to relative shocks in a monetary union where the monetary authorities are committed to price stability. It is shown that in the absence of costs of adjusting the fiscal stance, noncooperative fiscal policies are as efficient in response to relative demand shocks as cooperative or centralized ones. For productivity shocks, decentralized determination of fiscal policies is in general sub-optimal, unless relative productivity shocks are bounded, in which case a trigger strategy (reputational) equilibrium can replicate the cooperative outcome. However, if productivity shocks are not bounded, following large shocks there will be periods of reversion to a suboptimal Cournot-Nash equilibrium. If there are costs of adjusting the fiscal stance these results generalize to relative demand shocks as well.

PD June 1990. **TI** International Costs and Benefits from EMU. **AU** Alogoskoufis, George S.; Portes, Richard. **AA** University of London and CEPR. **SR** National Bureau of Economic Research Working Paper: 3384; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** \$2.00. **JE** F15, F36, F42. **KW** Currency. Economic Integration. European Community. Policy Coordination. Monetary Union.

AB In this paper we examine the international implications of monetary union in the European Community (EMU), and the associated international costs and benefits. We consider prospective changes in international institutions, the potential role of the ECU as an international currency, and the implications of EMU for the international coordination of monetary and fiscal policies.

Altman, Edward I.

PD April 1990. **TI** How 1989 Changed the Hierarchy of Fixed Income Security Performan. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: S-90-13; 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** not available. **JE** 313. **KW** Junk Bonds. Corporate Debt. Bonds. Investment Portfolio. Bond Market.

AB In the mid to late 1980s, the hierarchy of fixed income security returns was consistent with the risk attributes of corporate and government debt. Over the last decade and longer, high-yield "junk" bonds had high arithmetic and compound average returns, whether measured monthly or annually. While individual year returns did not always witness this hierarchy, e.g., 1982, 1984-1986, the longer term return spreads favored the more risky securities. But, high yield bonds clearly possessed greater liquidity risk and default risk than long-term, investment-grade corporate and government bonds. The volatility measures, however, also seemed to favor junk

bonds. If you matched portfolios for duration, the volatility measures were fairly similar for all securities. Many observers questioned whether this seeming anomaly of higher returns and lower or equal volatility could continue. Indeed, some questioned the use of standard volatility measures, such as the variance of return, when the debt contained an embedded put option. Others noted that the duration measure should be adjusted in assets that are not free of default.

Anderson, H. M.

PD July 1990. **TI** Treasury Bill Yield Curves and Co-integration. **AU** Anderson, H. M.; Granger, C. W. J.; Hall, A. D. **AA** Anderson and Granger: University of California, San Diego. Hall: Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 215; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 27. **PR** not available. **JE** 313, 311, 132. **KW** Treasury Bills. Capital Market. Forecasting. Federal Reserve. Monetary Policy.

AB This paper shows that yields to maturity of U.S. Treasury Bills are co-integrated, and that the "spreads" between yields of different maturity define the co-integrating vectors. The co-integration found here implies that a single nonstationary common factor underlies the time series behavior of each yield to maturity. Estimation of implied error correction models which use spreads as error correction terms shows that these models are not stable over the Federal Reserve's policy regime changes, but post 1982 models are supported by the data, and are useful for forecasting changes in yields.

Ando, Albert

PD May 1990. **TI** The Cost of Capital in Japan: Recent Evidence and Further Results. **AU** Ando, Albert; Auerbach, Alan J. **AA** University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 3371; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** \$2.00. **JE** E22, L11, O16, O53, O51. **KW** Capital. Investment. Firm Size. Japan. United States.

AB We extend our recent work measuring the cost of capital in Japan and the United States by considering several questions that such results raised. Among our findings are (1) The small firm - large firm distinction appears to be more significant in Japan, not in the United States; (2) Correcting Japanese accounting statements for cross-holding raises the estimated Japanese cost-of-capital by about 1 percentage point; (3) Correcting Japanese accounting statements for unmeasured returns to land has a significantly more important effect; the most conservative correction we attempt raises the implied Japanese return to capital to parity with the United States during the mid 1980's.

Andrews, Donald W. K.

PD May 1990. **TI** Asymptotics for Semiparametric Econometric Models: I. Estimation and Testing. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 908R; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 99. **PR** no charge. **JE** 211. **KW** Asymptotic Normality. Nuisance Parameter. Lagrange Multiplier Test. Nonparametric Estimation. Stochastic Equicontinuity. Wald Test. Semiparametric Test.

AB This paper provides a general framework for proving the

square root of T consistency and asymptotic normality of a wide variety of semiparametric estimators. The results apply in time series and cross-sectional modelling contexts. The class of estimators considered consists of estimators that can be defined as the solution to a minimization problem based on a criterion function that may depend on a preliminary infinite dimensional nuisance parameter estimator. The criterion function need not be differentiable. The method of proof exploits results concerning the stochastic equicontinuity or weak convergence of normalized sums of stochastic processes. This paper also considers tests of nonlinear parametric restrictions in semiparametric econometric models. To date, only Wald tests of such restriction have been considered in the literature.

PD July 1990. **TI** Asymptotics for Semiparametric Econometric Models: II. Stochastic Equicontinuity and Nonparametric Kernel Estimation. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 909R; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 99. **PR** no charge. **JE** 211. **KW** Kernel Estimator. Nonparametric Estimator. Semiparametric Estimator. Asymptotic Theory. Semiparametric Test. Stochastic Equicontinuity.

AB This paper presents several stochastic equicontinuity results that are useful for establishing the asymptotic properties of estimators and tests in parametric, semiparametric, and nonparametric econometric models. In particular, they can be applied straightforwardly in the estimation and testing results of Andrews (1989b). The paper takes various stochastic equicontinuity results from the probability literature, which rely on entropy conditions of one sort or another, and provides primitive conditions under which the entropy conditions hold. This yields stochastic equicontinuity results that are readily applicable in a variety of contexts. This paper also presents a number of consistency results for nonparametric kernel estimators of density and regression functions and their derivatives. These results are particularly useful in semiparametric estimation and testing problems that rely on preliminary nonparametric estimators, as in Andrews (1989b).

PD August 1990. **TI** A Functional Central Limit Theorem for Strong Mixing Stochastic Processes. **AU** Andrews, Donald W. K.; Pollard, David. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 951; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 18. **PR** no charge. **JE** 211. **KW** Central Limit Theorem. Empirical Process. Independent Variables.

AB This paper shows how the modern machinery for generating abstract empirical central limit theorems can be applied to arrays of dependent variables. It develops a bracketing approximation based on a moment inequality for sums of strong mixing arrays, in an effort to illustrate the sorts of difficulty that need to be overcome when adapting the empirical process theory for independent variables. Some suggestions for further development are offered. The paper is largely self-contained.

TI Tests of Specification for Parametric and Semiparametric Models. **AU** Whang, Yoon-Jae; Andrews, Donald W. K.

Arellano, Manuel

PD August 1990. **TI** Another Look at the Instrumental-Variable Estimation of Error-Components Models.

AU Arellano, Manuel; Bover, Olympia. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 7; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 19. **PR** no charge. **JE** C33, C31. **KW** Panel data. Method of Moments. Predetermined Variables. Random Effects Model.

AB This article develops a framework for efficient IV estimators of random effects models with information in levels which can accommodate predetermined variables. Our formulation clarifies the relationship between the existing estimators and the role of transformations in panel data models. We characterize the valid transformations for relevant models and show that optimal estimators are invariant to the transformation used to remove individual effects. We present an alternative transformation for models with predetermined instruments which preserves the orthogonality among the errors. Finally, we consider models with predetermined variables that have constant correlation with the effects and illustrate their importance with simulations.

PD October 1990. **TI** Female Labor Supply and On-the-Job Search: An Empirical Model Estimated using Complimentary Data Sets. **AU** Arellano, Manuel; Meghir, Costas. **AA** Arellano: London School of Economics and Institute for Fiscal Studies. Meghir: University College London and Institute for Fiscal Studies. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 9; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 40. **PR** no charge. **JE** J22, J64. **KW** Labor Supply. Job Search. Time Allocation.

AB We specify an empirical model of labor supply that is consistent with on-the-job search, which is identified and estimated by combining two data sets: The U.K. Family Expenditure Survey, which contains information on income and expenditure and the U.K. Labor Force Survey, which has data on hours and job search behavior. We provide statistical evidence on the compatibility of the two samples for the purposes of estimating a labor supply equation. We find that on-the-job search has a direct negative effect on hours and we establish a strong positive effect of the wage on hours.

Aron, Debra J.

PD November 1990. **TI** The Timing of Entry into New Markets. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 917; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 48. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** L16, D82, D92, O14. **KW** Asymmetric Information. Firm Entry. Corporate Strategy. Nash Equilibrium.

AB Under what circumstances will a successful incumbent in a related market be the first to enter a new market? We present a model in which the order of entry into new markets has long run effects on the firms' profits. We assume that a firm that is successfully producing in a related market has valuable information about the demand in the new market.

Aruka, Yuji

PD March 1990. **TI** Perturbation Theorems on the Linear Production Model and some Properties of Eigenprices.

AA Chuo University and Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 203; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 25. **PR** not available. **JE** 022, 213. **KW** Linear Perturbations. Production Model. Production System. Prices.

AB This paper is concerned with the application of perturbations to constant coefficients in the linear production model. This kind of perturbation can be explored by the use of eigenprojections. The viability of the eigenprojection in a perturbed production system depends crucially on the rank of a matrix appearing in the production system, since the diagonalizability of a matrix is a standard regularity condition. Economic meaning is given to the diagonalizable input coefficient matrix. After eliminating anomalies, the price system reduces to a set of independent price movements, in the sense that it is expressed in terms of normal modes (or mutually independent eigenvectors). A mathematical meaning of diagonalizability (or the rank condition) of a constant input coefficient matrix is examined. The analysis is restricted to linear perturbations.

Ashenfelter, Orley

PD August 1990. **TI** An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew. **AA** Ashenfelter: Princeton University. Currie: University of California, Los Angeles. Farber: Massachusetts Institute of Technology. Spiegel: Columbia University. **SR** National Bureau of Economic Research Working Paper: 3417; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$2.00. **JE** 026, 215. **KW** Arbitration. Disputes. Experimental Economics. Negotiations.

AB This paper reports the results of a systematic experimental comparison of the effect of alternative arbitration systems on dispute rates. The key to our experimental design is the use of a common underlying distribution of arbitrator "fair" awards in the different arbitration procedures where we hold fixed the amount of objective underlying uncertainty about the arbitration awards. There are three main findings. First, dispute rates are inversely related to the monetary costs of disputes. Second, contrary to conventional wisdom, the dispute rate in a final offer arbitration system is at least as high as the dispute rate in comparable conventional arbitration system. Third, dispute rates are inversely related to the uncertainty costs of disputes.

PD September 1990. **TI** An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew. **AA** Ashenfelter: Princeton University. Currie: University of California, Los Angeles. Farber: Massachusetts Institute of Technology. Spiegel: Columbia University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 55; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 48. **PR** no charge. **JE** J52. **KW** Arbitration. Bargaining Experiments. Disputes. Bargaining.

AB This paper reports the results of a systematic experimental comparison of the effect of alternative arbitration systems on dispute rates. The key to our experimental design is the use of a common underlying distribution of arbitrator "fair"

awards in the different arbitration systems. This allows us to compare dispute rates across different arbitration procedures where we hold fixed the amount of objective underlying uncertainty about the arbitration awards. There were three main findings. First, dispute rates are inversely related to the monetary costs of disputes. Second, the dispute rate in a final-offer arbitration system is at least as high as the dispute rate in a comparable conventional arbitration system. Third, dispute rates are inversely related to the uncertainty costs of disputes.

PD September 1990. **TI** Lawyers as Agents of the Devil in a Prisoner's Dilemma Game. **AU** Ashenfelter, Orley; Bloom, David E. **AA** Ashenfelter: Princeton University. Bloom: Columbia University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 57; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 31. **PR** no charge. **JE** K41, D74, D63. **KW** Lawyers. Arbitration Systems. Prisoner's Dilemma. Conflict.

AB The goal of this paper is to explore the possibility that the costs and benefits of legal representation are structured so that each individual party seeks legal representation in the hope of exploiting the other party, while knowing full well that failing to do so will open up the possibility of being exploited. The first part of the paper shows how the structure of the incentives faced by the parties may be estimated, and the second describes the results of empirical tests in several different settings. The empirical results strongly suggest that the parties do face "prisoner's dilemma" incentives, although no attempt is made to determine whether the parties respond to these incentives.

Auerbach, Alan J.

TI The Cost of Capital in Japan: Recent Evidence and Further Results. **AU** Ando, Albert; Auerbach, Alan J.

PD July 1990. **TI** Tax Aspects of Policy towards Aging Populations: Canada and the United States. **AU** Auerbach, Alan J.; Kotlikoff, Laurence J. **AA** Auerbach: University of Pennsylvania. Kotlikoff: Boston University. **SR** National Bureau of Economic Research Working Paper: 3405; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** \$2.00. **JE** J11, F41. **KW** Demographics. Simulation Model. Life Cycle Model. Open Economy.

AB This paper uses the Auerbach-Kotlikoff dynamic simulation model to compare the projected demographic transitions in Canada and the United States. The simulation model determines the perfect foresight transition path of an economy in which individuals live to age 75. The model's preferences are life cycle augmented to include utility from bequests. In addition to handling changes in demographics and fiscal policies, the model can be run for closed or open economies. In comparing Canada with the U.S., we first simulate the U.S. demographic transition, treating the U.S. as a closed economy. The time path of interest rates obtained from the U.S. simulations are then used in the Canadian simulation. In the Canada simulation, Canada is assumed to be an open economy which takes the U.S. interest rate as given.

PD July 1990. **TI** U.S. Demographics and Savings: Predictions of Three Saving Models. **AU** Auerbach, Alan J.; Cai, Jinyong; Kotlikoff, Laurence J. **AA** Auerbach: University of Pennsylvania. Cai and Kotlikoff: Boston University. **SR** National Bureau of Economic Research

Working Paper: 3404; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** \$2.00. **JE** E21, E27, J11. **KW** Savings. Demographics. Life Cycle Model. Forecasting. Altruism Model.

AB This paper compares the predictions of three different saving models with respect to the impact of projected U.S. demographic change on future U.S. saving rates. The three models are the life cycle model, the infinite horizon altruism model, and a reduced form econometric model. The findings for the different models indicate a great range of possible paths of future U.S. saving. However, the three models concur in predicting a peak in the U.S. national saving rate in the near future (within 15 years), followed by a significant decline in the saving rate thereafter. In fact, the findings suggest the strong possibility of negative U.S. saving rates beginning after 2030.

Backus, David K.

PD July 1990. **TI** Accounting for Forward Rates in Markets for Foreign Currency. **AU** Backus, David K.; Gregory, Allan W.; Telmer, Chris I. **AA** Backus: Federal Reserve Bank of Minneapolis and New York University. Gregory and Telmer: Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 792; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 46. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** F31, G15, G13. **KW** Forward Rates. Risk Premium. Contingent Pricing. Currency. Spot Rates.

AB We examine the behavior of forward and spot exchange rates from the perspective of the representative agent theory of asset pricing. We verify that with moderate risk aversion and time-additive preferences the theory accounts for very little (by our calculations, less than 5 percent) of the variability of expected returns from currency speculation observed for major currencies versus the U.S. dollar. With strong habit persistence, however, the theory can account for one-half to two-thirds of the estimated standard deviation of expected returns from currency speculation. Hansen-Jagannathan bounds imply that the variability of expected returns on currencies, like the equity premium, requires a great deal of variability in intertemporal marginal rates of substitution, some of which is delivered by habit persistence.

Bacon, Robert W.

PD September 1990. **TI** Market Areas, Shopping Behaviour and Urban Rents. **AA** Oxford University. **SR** Oxford Applied Economics Discussion Paper: 96; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 44. **PR** not available. **JE** D12, R10, D23. **KW** Consumer Behavior. Shopping. Households.

AB A model of household shopping behavior in which rents and the costs of the journey to work, as well as the cost of shopping, enter the budget constraint, is constructed. By aggregating over all consumers in the market the equilibrium market area and the price charged for the shopping good are determined. Rents are competitively determined so as to reflect the advantages of living nearer to the shops and to the place of work. The gradient of rents with respect to distance is shown to be a function of all the economics variables in the model, not just the transport cost as in traditional models. The impact of allowing for the endogeneity of rents on the resulting market

areas and prices is investigated.

Bagwell, Kyle

PD September 1990. **TI** Advertising and Coordination. **AU** Bagwell, Kyle; Ramey, Garey. **AA** Bagwell: Northwestern University. Ramey: University of California, San Diego. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 903; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 74. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** M37, L15, D21. **KW** Advertising. Signaling. Prices. Product Quality.

AB We show that when relevant market information such as price is difficult to communicate, advertising plays a key role in bringing about optimal coordination of purchase behavior: an efficient firm uses advertising expenditures in place of price to inform sophisticated consumers that it offers a better deal. This provides a theoretical explanation for Benham's (1972) empirical association of the ability to advertise with lower prices and larger scale. We find that advertising improves welfare unambiguously when firms' price choices are the only source of uncertainty. When advertising must also signal the identity of the efficient firm, however, a welfare tradeoff arises between advertising and coordination. Our results extend readily to situations of partial price observability and product quality uncertainty.

Bai, Jun

PD April 1990. **TI** Discrimination Procedures for Fitting Nested and Non-Nested Distributions to Environmental Quality Data. **AU** Bai, Jun; Jakeman, Anthony J.; McAleer, Michael. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 200; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 58. **PR** not available. **JE** 211, 212. **KW** Maximum Likelihood. Monte Carlo. Model Selection. Simulation Model.

AB A practical approach is proposed for discriminating among nested and non-nested probability distributions. Some existing problems with traditional model selection approaches are addressed, including standard testing of a null hypothesis against a more general alternative and the use of some well-known discrimination criteria for non-nested distributions. A generalized information criterion is used to choose from two or more model structures or probability distributions. For each set of random samples, all model structures that do not perform significantly worse than other candidates are selected. The two- and three-parameter gamma, Weibull and lognormal distributions are used to compare the discrimination procedures with traditional approaches. Monte Carlo experiments are employed to examine the performances of the criteria and tests over large sets of finite samples.

PD June 1990. **TI** Estimation and Discrimination of Alternative Air Pollution Models. **AU** Bai, Jun; Jakeman, Anthony J.; McAleer, Michael. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 209; Australian National University, GPO BOX 4, Canberra, ACT 2601, AUSTRALIA. **PG** 39. **PR** not available. **JE** C88, Q25. **KW** Computers. Software. Pollution. Australia.

AB This paper provides essential background to and illustration of the procedures available within the PROFIT

computer package. The package aids the practitioner in selecting an appropriate probability distribution from a set of alternatives to represent the frequency of air pollutant concentrations; it also estimates the parameters of the distribution, predicts any desired percentile values, and calculates the minimum errors associated with that prediction. As an illustration, two- and three- parameter gamma, Weibull and lognormal distributions are applied to annual sets of air pollutant concentrations recorded at several monitoring sites in Melbourne, Australia. Six types of pollutants, namely carbon monoxide, nitrogen monoxide, nitrogen dioxide, nitrogen oxides, sulphur dioxide and beta scattering, from up to five monitoring stations are analyzed using a comprehensive model selection procedure.

Baldwin, Richard E.

PD March 1990. **TI** The US-Japan Semiconductor Arrangement. **AA** Columbia University. **SR** Centre for Economic Policy Research Discussion Paper: 387; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 25. **PR** 2.00 pounds (\$4.00). **JE** 422, 421, 442. **KW** Semiconductor Industry. Trade Restrictions. Trade Agreements. Commercial Policy.

AB The semiconductor arrangement was intended to enhance free trade based on market principles. This paper argues that the arrangement had exactly the opposite effect. The arrangement has two parts: a price floor to prevent predatory pricing, and provisions to double U.S. market share in Japan to counter market closure. Given semiconductor production technology, the price floor forced a capacity reduction, a rise in world prices and a cartelization of the market. Since the observed dumping was probably not predatory pricing, the price floor restricted competition and free trade. The market closure probably exists and significantly harms non-Japanese producers. It is therefore an anti-competitive practice.

Balog, Antal

PD November 1990. **TI** On the Convex Hull of the Integer Points in a Disc. **AU** Balog, Antal; Barany, Imre. **AA** Balog: Hungarian Academy of Sciences and Institute for Advanced Study. Barany: Hungarian Academy of Sciences and Yale University. **SR** Yale Cowles Foundation Discussion Paper: 962; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 10. **PR** no charge. **JE** 213. **KW** Convex Hull. Vertices.

AB Let $P(r)$ denote the convex hull of the integer points in the disc of radius r . We prove that the number of vertices of $P(r)$ is essentially r to the $2/3$ as r goes to infinity.

Banerjee, Abhijit V.

PD October 1990. **TI** Occupational Choice and the Process of Development. **AU** Banerjee, Abhijit V.; Newman, Andrew F. **AA** Banerjee: Princeton University. Newman: Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 911; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** not available. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** J24, O11, O15. **KW** Occupation. Economic Development. Wealth Distribution.

AB This paper models economic development as a process of institutional transformation by focusing on the interplay between agents' occupational decisions and the distribution of wealth. Because of capital market imperfections, poor agents choose working for a wage over self-employment, and wealthy agents become entrepreneurs who monitor workers. However, only with sufficient inequality will there be employment contracts; otherwise, depending on average wealth, there is either stagnation or self-employment. Thus, in a static context, the occupational structure depends on distribution. Since the distribution of wealth is itself endogenous, however, we demonstrate the robustness of this result by extending the model dynamically and studying examples in which initial wealth distributions have long run effects.

PD December 1990. **TI** Peer Group Externalities and Learning Incentives: A Theory of Nerd Behavior. **AU** Banerjee, Abhijit V.; Besley, Timothy. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 68; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 38. **PR** no charge. **JE** J24, D83. **KW** Peer Groups. Learning.

AB This paper investigate peer group externalities in a model where individuals seek to learn their abilities to make career decisions. Such externalities are widely regarded to be of central importance in understanding educational performance and there are many studies, beginning with the Coleman Report, which have found them to be of empirical significance. The basic idea is that individuals respond positively to being grouped with more industrious individuals. In our model, individuals receive test scores which are imperfect indicators of their ability. Some resources of uncertainty, such as how difficult the test is, are common to the group. By having peers who put in effort, one can obtain a more precise estimate of this source of uncertainty. Effort by one individual may thus convey an externality for others who take the same test. Our model displays two key properties. First, utility is not concave in effort. Second, there will be multiple symmetric Nash equilibria in effort for some values of effort costs.

Banks, Jeffrey

PD June 1990. **TI** An Experimental Analysis of Nash Refinements in Signaling Games. **AU** Banks, Jeffrey; Camerer, Colin; Porter, David. **AA** Banks: University of Rochester. Camerer: University of Pennsylvania. Porter: California Institute of Technology. **SR** Caltech Social Science Working Paper: 740; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 43. **PR** no charge. **JE** 215, 026. **KW** Experimental Economics. Signaling Games. Nash Equilibrium. Game Theory.

AB This paper investigates the refinements of Nash equilibrium in two person signaling game experiments. The experimental games cover the watershed of the nested refinements: Bayes-Nash, Sequential, Intuitive, Divine, Universally Divine, NWBR, and Stable. In each game an equilibrium selection problem is defined in which adjacent refinements are considered. The pattern of outcomes suggest that individuals select the more refined equilibria up to the divinity concept. However, an anomaly occurs in the game in which the stable equilibrium is a clear preference among the subjects. Since the concepts are nested this suggests that the

outcomes are game specific. Sender behavior does not seem to follow any specific decision rule (e.g., Nash, minmax, Pir, etc.) while receiver actions tend to correspond to the Nash equilibrium outcomes.

Barany, Imre

TI On the Convex Hull of the Integer Points in a Disc.
AU Balog, Antal; Barany, Imre.

Barnett, Richard R.

PD October 1990. **TI** Simulating Local Government Expenditure Decisions and Welfare Changes under a Community Charge (Poll Tax) Regime. **AU** Barnett, Richard R.; Levaggi, Rosella; Smith, Peter. **AA** University of York. **SR** Queen's John Deutsch Institute Discussion Paper: 5; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 34. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** H71, H72. **KW** Local Governments. Poll Tax. Tax Reform. Government Finance. Government Spending. England.

AB The system of local government finance in England and Wales has undergone a major reform. The main aspect of the reform is the replacement of the property tax on residential property with a poll tax (known officially as a community charge), and the prime objective behind the reform is to encourage restraint in local government spending. This paper presents the results of a simulation exercise in which it is estimated what local government expenditure would have been in each of the three fiscal years 1986/87 to 1988/89 had the reforms been fully operational in those years. The simulation exercise suggests that local government expenditure would have been in the range 7% to 20% lower depending on the type of local government and the fiscal year considered. The results of the simulation exercise are also used to carry out a welfare analysis of the reforms.

Baron, David

TI Dividing a Cake by Majority: The Simplest Equilibria.
AU Kalai, Ehud; Baron, David.

Barro, Robert J.

PD May 1990. **TI** Public Finance in Models of Economic Growth. **AU** Barro, Robert J.; Sala i Martin, Xavier. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 3362; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 34. **PR** \$2.00. **JE** O41, H41, H42, H21, E62. **KW** Fiscal Policy. Economic Growth. Taxes. Investment. Public Goods.

AB The recent literature on endogenous economic growth allows for effects of fiscal policy on long-term growth. If the social rate of return on investment exceeds the private return, then tax policies that encourage investment can raise the growth rate and levels of utility. In growth models that incorporate public services, the optimal tax policy hinges on the characteristics of the services. If the public services are publicly provided private goods, which are rival and excludable, or publicly provided public goods, which are non-rival and non-excludable, than lump-sum taxation is superior to income taxation.

PD August 1990. **TI** Economic Growth and Convergence Across the United States. **AU** Barro, Robert J.; Sala i Martin,

Xavier. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 3419; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$2.00. **JE** 111, 226, 023. **KW** Growth Theory. Growth Model. Scale Economies. Technology.

AB A key economic issue is whether poor countries or regions tend to grow faster than rich ones: are there automatic forces that lead to convergence over time in levels of per capita income and product? After considering predictions of closed- and open-economy neoclassical growth theories, we examine data since 1840 from the U.S. states. We find clear evidence of convergence, but the findings can be reconciled quantitatively with neoclassical models only of diminishing returns to capital set in very slowly. The results from a broad sample of countries are similar if we hold constant a set of variables that proxy for differences in steady-state characteristics. Two types of existing theories seem to fit the facts: the neoclassical growth model with broadly-defined capital and a limited role for diminishing returns, and endogenous growth models with constant returns and gradual diffusion of technology across economies.

Bartel, Ann P.

PD September 1990. **TI** Technological Change and the Careers of Older Workers. **AU** Bartel, Ann P.; Sicherman, Nachum. **AA** Bartel; Columbia University. Sicherman; Rutgers University. **SR** National Bureau of Economic Research Working Paper: 3433; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** \$2.00. **JE** 621, 811, 824, 851, 821. **KW** Technology. Human Capital. Retirement. Job Training.

AB Recent research has shown that technological change has important labor market implications and in this paper we demonstrate one on the avenues through which this occurs. According to the theory of human capital, technological change will influence the retirement decisions of older workers in two ways. First, workers in industries that are characterized by high rates of technological change will have later retirement ages because these industries require larger amounts of on-the-job training. Second, an unexpected change in the industry's rate of technological change will induce older workers to retire sooner because the required amount of retraining will be an unattractive investment. We matched time series data on rates of technological change and required amounts of training in 35 industrial sectors with data from the NLS Older Men Survey to test these hypotheses. Our results strongly support both hypotheses.

Basu, Kaushik

PD October 1990. **TI** Strategy Subsets Closed under Rational Behavior. **AU** Basu, Kaushik; Weibull, Jorgen W. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 62; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 23. **PR** no charge. **JE** C70. **KW** Rationalizability. Nash Equilibrium. Minimal Sets. Game Theory. Rational Behavior.

AB A set of strategy profiles is here said to be closed under rational behavior (curb) if it contains all its best replies. Each curb set contains the support of at least one Nash equilibrium in mixed strategies, but there are perfect Nash equilibria that are not contained in any minimal curb set. It is shown that every

game with compact strategy sets and continuous payoff functions possesses at least one minimal curb set is identical with its best replies and that it is contained in the set of rationalizable strategy profiles.

Bean, Charles R.

PD August 1990. **TI** The External Constraint in the U.K. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 10; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 39. **PR** no charge. **JE** F32, F34. **KW** Current Account. Interest Parity. Foreign Borrowing.

AB This paper begins by reviewing the impact of external consideration on British economic policy making over the last hundred and fifty years. We then go on to ask whether, in addition to the usual intertemporal solvency requirement, there is a period-by-period external constraint in the form of a rising virtual supply price of foreign borrowing. We estimate a version of consumption risk-adjusted interest parity that allows for such a feature, but find little evidence that it is important. Finally, we discuss the recent evolution of the British current account and argue that the authorities are right to take a sanguine view.

Becker, Gary S.

PD August 1990. **TI** Human Capital, Fertility, and Economic Growth. **AU** Becker, Gary S.; Murphy, Kevin M.; Tamura, Robert F. **AA** Becker and Murphy: University of Chicago. Tamura: University of Iowa. **SR** National Bureau of Economic Research Working Paper: 3414; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 38. **PR** \$2.00. **JE** 111, 851, 023. **KW** Human Capital. Growth Model. Growth Rates. Growth Theory.

AB Our model of growth departs from both the Malthusian and Neoclassical approaches by including investments in human capital. We assume, crucially, that rates of return on human capital investments rise, rather than, decline, as the stock of human capital increases, until the stock becomes large. This arises because the education sector uses human capital more intensively than either the capital producing sector or the goods producing sector. This produces multiple steady states: an undeveloped steady state with little human capital, low rates of return on human capital investments and high fertility, and a developed steady state with higher rates of return, a large, and, perhaps, growing stock of human capital and low fertility. Multiple steady states means that history and luck are critical determinants of a country's growth experience.

Beltratti, Andrea

TI Stock Prices and Bond Yields: Can Their Comovements be Explained in Terms of Present Value Models? **AU** Shiller, Robert J.; Beltratti, Andrea.

Benhabib, Jess

PD January 1990. **TI** Endogenous Fertility and Growth. **AU** Benhabib, Jess; Nishimura, Kazuo. **AA** Benhabib: New York University. Nishimura: Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 201; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 16. **PR** not available. **JE** 111, 131,

226. **KW** Growth Theory. Fertility. Altruism. Children. Families.

AB A recent model by Barro and Becker has incorporated fertility decisions, or decisions about the number of children to have, into a growth theoretic context. The welfare of children (through their per capita consumption) is incorporated into their parents' utility. Since consumption must be sacrificed to educate children, the investment decisions become more complex in such a setting. We shall show that the dynamic behavior of physical capital will be monotonic or oscillatory, depending on the elasticity of a certain "altruism" function which may also be viewed as the elasticity of an inverse demand curve for children. This elasticity plays a major role in determining the existence of multiple steady states. From an empirical perspective multiple steady states may be useful to explain persistent differentials between growth rates of some poor and rich countries.

Bennett, Elaine

PD August 1990. **TI** Demand Commitment Bargaining - The Case of Apex Games. **AU** Bennett, Elaine; Damme, Eric van. **AA** Bennett: Johns Hopkins University. Damme: Tilburg University, the Netherlands. **SR** Johns Hopkins Department of Political Economy Working Paper: 255; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 23. **PR** no charge. **JE** C71, C78. **KW** Bargaining. Noncooperative Games. Credible Threats. Coalition.

AB An apex game is a bargaining situation in which there is one major (apex) player and n "minor" players. The only profitable coalitions contain either the apex player and any one of the minor players or else all of the minor players. The demand commitment model is a bargaining procedure, i.e. an extensive form game. This paper investigates the payoffs that result (as subgame perfect outcomes) for apex games when players use the demand commitment bargaining procedure. We show that whenever the apex player has the first move he forms a coalition with a minor player and obtains the fraction $(n - 1)/n$ of the coalition's value while his (minor-player) partner obtains the remaining $1/n$. When a minor player has the first move he either forms a coalition with the apex player (and obtains $1/n$) or else forms a coalition with all of the remaining minor players. When this minor-player coalition forms there are many subgame perfect payoff distributions. A refinement of subgame perfection is proposed and is shown to select a unique payoff distribution ($1/n$ for each minor player) for the minor-player coalition.

Bennett, Neil G.

TI Modeling American Marriage Patterns. **AU** Bloom, David E.; Bennett, Neil G.

Bental, Benjamin

PD April 1990. **TI** Competitive Banking with Fractional Reserves and Regulations. **AU** Bental, Benjamin; Eckstein, Zvi; Peled, Dan. **AA** Bental and Peled: Technion, Israel Institute of Technology. Eckstein: Tel Aviv University and Boston University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 10-90; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, ISRAEL. **PG** 35. **PR** no charge. **JE** 312, 311. **KW** Bank Reserves. Banking Crisis. Commercial Banks. Central Bank. Deposit Insurance. Monetary Policy.

AB When demand deposits are backed by fractional reserves, banks become inherently unstable and self-fulfilling panics may occur. In the face of this instability, governments have found it necessary to intervene and regulate the banking industry. In this paper we attempt to address these issues within a modified version of the model proposed by Diamond and Dybvig (1983). We adopt a competitive equilibrium concept in which depositors' expectations about banks' future payments are influenced by the realization of an extraneous random shock, (a "sunspot"). These extraneous shocks are economy-wide and are simultaneously and immediately observed by all agents.

Bera, Anil K.

TI Alternative Approaches to Testing Non-Nested Models with Autocorrelated Disturbances: An Application to Models of U.S. Unemployment. **AU** McAleer, Michael; Pesaran, M. Hashem; Bera, Anil K.

PD June 1990. **TI** Estimation of Systematic Risk using Bayesian Analysis with Hierarchical and Non-Normal Priors. **AU** Bera, Anil K.; Machado, Jose A. F. **AA** Bera: University of Illinois and University of Western Ontario. Machado: University of Illinois and Universidade Nova de Lisboa. **SR** University of Western Ontario Department of Economics Research Report: 9008; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 20. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** G31, G12, G11, D81. **KW** Investment. Risk. Forecasting. Bayesian Analysis.

AB Estimation of systematic risk is one of the most important aspects of investment analysis, and has attracted the attention of many researchers. In spite of substantial contributions in the recent past, there still remains room for improvement in the methodologies currently available for forecasting systematic risk. This paper is concerned with some improved methods of estimating systematic risk for individual securities. We use Bayesian analysis with hierarchical and non-normal priors.

Berlin, Mitchell

PD April 1990. **TI** Loan Reschedulings and the Size of the Banking Sector. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: S-90-14; 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** not available. **JE** 312. **KW** Commercial Banks. Banking. Portfolios. Loan Market. Bonds.

AB This paper presents a model of the boundary of the banking sector in a world where firms can choose between short-term bonds, long-term bonds, and bank loans. Banks are specialists in loan restructurings, providing flexibility without permitting borrowers to expropriate lenders, but they face a capacity constraint on the fraction of requests for renegotiation that can be entertained. Thus, some firms will have their requests denied with high probability to permit other firms with higher priority to restructure. Bank portfolios are viewed as a cross-subsidy scheme in which those firms with high priority must pay a premium to permit the bank to charge a low loan rate to those with lower pri.

Berndt, Ernst R.

PD June 1990. **TI** Interdependent Pricing and Markup Behavior: An Empirical Analysis of GM, Ford and Chrysler. **AU** Berndt, Ernst R.; Friedlaender, Ann F.; Wang Chiang,

Judy Shaw-Er. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 3396; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 56. **PR** \$2.00. **JE** L62, L13, L21. **KW** Automobiles. Auto Industry. Market Structure.

AB Our purpose in this paper is to develop and estimate a model of the U.S. automobile industry that can be used to analyze the secular and cyclical strategic markup behavior and market structure of its three major domestic producers -- GM, Ford and Chrysler. The principal novelty in this paper is not so much in the underlying theory (we build on what Timothy Bresnahan has called the "new empirical industrial organization" literature), but rather in the actual empirical implementation of a multi-equation model sufficiently general to permit the testing of a variety of specific behavioral postulates associated with the interdependent strategic profit-maximizing behavior of GM, Ford and Chrysler.

Bernheim, B. Douglas

PD September 1990. **TI** Tax Policy and the Dividend Puzzle. **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper: 3434; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 53. **PR** \$2.00. **JE** 521, 511, 323. **KW** Dividends. Corporations. Taxes. Tax Policy. Business Finance.

AB This paper offers a new explanation of the dividend puzzle, based upon a model in which firms attempt to signal profitability by distributing cash to shareholders. I assume that dividends and repurchases are identical, except that dividends are taxed more heavily. Nevertheless, I demonstrate that, under certain plausible conditions, corporations will pay dividends. Indeed, some firms will actually pay dividends, and then retrieve a portion of these payments by issuing new equity (perhaps through a dividend reinvestment plan), despite the fact that this appears to create gratuitous tax liabilities. In addition to providing an explanation for the dividend puzzle, I also derive a number of strong results concerning corporate payout decisions and government tax policy.

Besley, Timothy

TI Peer Group Externalities and Learning Incentives: A Theory of Nerd Behavior. **AU** Banerjee, Abhijit V.; Besley, Timothy.

Bevan, David L.

PD May 1990. **TI** Temporary Trade Shocks and Dynamic Adjustment. **AU** Bevan, David L.; Collier, Paul; Gunning, Jan W. **AA** Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 93; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 32. **PR** not available. **JE** E22, E32, F32. **KW** Investment. Trade Shocks. Business Cycles.

AB Positive trade shocks induce investment and this usually involves a construction boom: price and output increases in the sectors producing non-tradable capital goods. A temporary shock provides agents with an incentive to save. A capital market imperfection then amplifies the construction boom and reduces the permanent income gain from the boom. It also upsets traditional Dutch Disease results: under capital market imperfections a temporary boom may well cause a decrease of

non-tradables' prices and an increase in the production of tradables.

PD May 1990. **TI** Price Controls and the Transition to Market Clearing: Theory and an Application to Tanzania. **AU** Bevan, David L.; Collier, Paul; Gunning, Jan W. **AA** Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 94; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 37. **PR** not available. **JE** P23, P12, P52, E21. **KW** Africa. Price Controls. Capitalist Economies. Socialist Economies. Consumer Goods. Rationing.

AB Generalized price controls give rise to shortages of consumer goods. The first part of the paper shows that households have an incentive to respond by reducing labor supply. In aggregate this reduces goods supply and the economy implodes. Distinctions are made between monetized and barter economies and between deterministic and stochastic rationing. The problems posed by the transition from shortages to market-clearing are analyzed and the policy options discussed. The second part of the paper applies the analysis to the Tanzanian reforms of 1984-89. We show that, consistent with the theory, as market-clearing conditions were restored crop sales increased very substantially despite a decline in their relative price.

Bils, Mark

PD July 1990. **TI** Selling versus Producing in Market Fluctuations. **AA** University of Chicago and National Bureau of Economic Research. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-16; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 61. **PR** not available. **JE** E32, M31, M37, M12. **KW** Marketing. Salesmen. Search Theory. Advertising. Business Fluctuations.

AB I consider markets in which sellers must expend resources to sell their good as well as for producing it. My particular concern is how the share of labor allocated to selling behaves in market fluctuations, and what behavior this implies for pricing and productivity. The key assumption is that sellers incur a cost in presenting their price to potential buyers. Consumers, upon receiving one or more price quotes, take the lowest price or else do not purchase. This creates a negative externality between sellers' activities-if other firms send out more salesmen, it reduces the probability my salesman gains a sale at a given price. The market exhibits interesting responses to disturbances that raise output and sales, such as an increase in consumers' preference for the good or a decrease in the cost of producing the good.

PD July 1990. **TI** Indexation and Contract Length in Unionized U.S. Manufacturing. **AA** University of Chicago and National Bureau of Economic Research. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-18; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 58. **PR** not available. **JE** J51, L60, J31. **KW** Labor Contracts. Wages. Collective Bargaining. Manufacturing.

AB I examine contract length and indexation for major collective bargaining agreements in U.S. manufacturing for 1957 to 1983 to test whether the cross-industry or time-series patterns are consistent with the model predictions of Joanna Gray and related predictions by later writers. I conclude that for

the most part they are not. The pattern of contract lengths across industries is inconsistent with the Gray model. And the model does not help to explain the cross-industry pattern in indexation. It is true that indexation has increased with increases in inflation and inflation uncertainty, but there are no significant corresponding decreases in contract length. Periods of greater real uncertainty have not been associated with significantly shorter contracts.

PD July 1990. **TI** Wage and Employment Patterns in Long-Term Contracts when Labor is Quasi-Fixed. **AA** University of Chicago and National Bureau of Economic Research. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-17; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 78. **PR** not available. **JE** J51, J31, J53, L60, E24. **KW** Labor Contracts. Wages. Manufacturing. Employment. Labor Demand.

AB I present evidence on predictable patterns that occur in wages and employment within the duration of labor contracts in U.S. manufacturing. Wage rates are very predictably front loaded-wage growth is concentrated at the beginning of contracts. More surprisingly, employment, on average, grows fastest in the first year of contracts. Results of contracting in the presence of dynamic labor demand are derived. I find that wages should predictably decline during contracts because unions use long-term contracts to commit to lower wage rates in future periods in order to increase employment demand today. Employment predictably increases during contracts; but these increases are small both because of the costs of adjusting employment and because firms have incentive to reduce employment at the end of contracts to reduce wage rates in subsequent bargains. I test further implications of the model against cross-sectional patterns in wage and employment behavior during contracts.

Blackburn, McKinley L.

PD August 1990. **TI** Fertility Timing, Wages, and Human Capital. **AU** Blackburn, McKinley L.; Neumark, David; Bloom, David E. **AA** Blackburn: University of South Carolina. Neumark: University of Pennsylvania. Bloom: Columbia University. **SR** National Bureau of Economic Research Working Paper: 3422; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$2.00. **JE** 851, 824, 921. **KW** Human Capital. Families. Life Cycle Model. Wages. Labor Force.

AB Women who have first births relatively late in life earn higher wages. This paper offers an explanation of this fact based on a simple life cycle model of human capital investment and timing of first birth. The model yields conditions (that are plausibly satisfied) under which late childbearers will tend to invest more heavily in human capital than early childbearers. The empirical analysis finds results consistent with the higher wages of late childbearers arising primarily through greater measurable human capital investment.

Blais, Andre

PD August 1990. **TI** The Debate over Electoral Systems. **AA** Universite de Montreal. **SR** University of Western Ontario Papers in Political Economy: 2; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 46. **PR** no charge. **JE** D72. **KW** Voting. Elections.

AB The argumentation supporting a given electoral system is

necessarily two-fold. First there is an empirical assertion about the likely consequences of that system. Secondly, there is a value judgement on the desirability and goodness of these consequences. Through a close examination of the terms of the debate, I intend to: 1) clearly distinguish the empirical and the normative arguments; 2) assess the empirical assertions through a systematic review of the evidence, which will enable me thereafter to focus the discussion on the most plausible statements; 3) clearly identify the major values invoked in the debate.

Blanchard, Olivier Jean

PD May 1990. **TI** The Stock Market, Profit and Investment. **AU** Blanchard, Olivier Jean; Rhee, Changyong; Summers, Lawrence. **AA** Blanchard: Massachusetts Institute of Technology. Rhee: University of Rochester. Summers: Harvard University. **SR** National Bureau of Economic Research Working Paper: 3370; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$2.00. **JE** 512, 511, 313, 522. **KW** Investment. Stock Market. Q Ratio. Managerial Economics. Decision Theory.

AB Should managers, when making investment decisions, follow the signals given by the stock market even if those do not coincide with their own assessments of fundamental value? This paper reviews the theoretical arguments and examines the empirical evidence, constructing and using a new U.S. time series of data on the q ratio from 1900 to 1988. We decompose q, the ratio of the market value of corporate capital to its replacement cost, into the product of two terms, reflecting "fundamentals" and "valuation", the ratio of market value to fundamentals. We then examine the relation of investment to each of the two, using a number of alternative proxies for fundamentals. We interpret our results as pointing, strongly but not overwhelmingly, to a larger role of "fundamentals" than of "valuation" in investment decisions.

PD May 1990. **TI** Economic Change in Poland. **AU** Blanchard, Olivier Jean; Layard, Richard. **AA** Blanchard: Massachusetts Institute of Technology. Layard: London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 3; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 35. **PR** no charge. **JE** O52, O11. **KW** Privatization. Inflation. Unemployment. Economic Reform. Recession. Poland.

AB Poland has tackled its economic problems with courage and, thus far, success. Hyperinflation has ceased, the well-chosen exchange rate has held, and wage behavior has been responsible. A major recession is under way, and it must not become endemic. A big export effort is needed, followed with discretion by some domestic relaxation. Foreign investment could be encouraged by removing all limits to the repatriation of profit. To prevent unemployment persisting even after demand recovers, unemployment benefits could be replaced after one year by paid temporary employment on public works. Inflation still needs to be further reduced to reach West European levels. One obvious approach is to lengthen the period of indexation used in calculating wage ceilings. And, finally, privatization should be accelerated, either by giving the capital stock to the people or by selling it in the form of highly-g geared holding companies.

PD June 1990. **TI** Ranking, Unemployment Duration, and Wages. **AU** Blanchard, Olivier Jean; Diamond, Peter. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 3387; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 45. **PR** \$2.00. **JE** J63, J64, J41. **KW** Vacancies. Unemployment. Labor Market. Wages. **AB** Firms often receive multiple acceptable applications for vacancies, requiring a choice among candidates. This paper contrasts equilibria when firms select workers at random and when firms select the worker with the shortest spell of unemployment, called ranking. With the filling of vacancies unaffected by the selection rule, both equilibria have the same aggregate dynamics, but different distributions of unemployment durations. With the threat point for the Nash bargained wage being a worker with zero unemployment duration, the wage with ranking is much more sensitive to changes in the tightness of the labor market. The same holds for efficiency wages.

Blanchflower, David G.

PD May 1990. **TI** Fear, Unemployment and Pay Flexibility. **AA** Dartmouth College. **SR** National Bureau of Economic Research Working Paper: 3365; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$2.00. **JE** J31, E24. **KW** Wage Determination. Wages. England. Unemployment.

AB The paper uses newly available cross-section data to study wage determination in the United Kingdom in the 1980s. The results are contrasted with those from a comparable sample from the U.S. from 1977-1988. 1) Fear of unemployment substantially depresses pay in both countries. 2) There is some evidence of a wage ratchet in the U.K. whereby rates of pay are more flexible upwards than downwards. 3) The unemployment elasticity of pay averages -0.1 in the U.K. and apparently zero in the U.S. 4) Wages are almost twice as flexible in non-union and small workplaces in the U.K.

PD June 1990. **TI** Going Different Ways: Unionism in the U.S. and Other Advanced OECD Countries. **AU** Blanchflower, David G.; Freeman, Richard B. **AA** Blanchflower: NBER, Dartmouth College and London School of Economics. Freeman: NBER and Harvard University. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 5; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 53. **PR** no charge. **JE** J51, J53, J31, O57. **KW** Trade Unions. Collective Bargaining. Labor-Management Relations. Wage Differentials.

AB In this paper we compare the changing pattern of unionization in OECD countries, review existing evidence, and present new information on cross-country differences in union/non-union differentials in labor market outcomes, largely from the micro data files of the International Social Survey Programme cross-country surveys of 1985-1987. Our analysis shows that American unions have a larger effect on wages, but not on other outcomes, than unions in other countries. We argue that the high union wage premium in the U.S. contributed to the decline in U.S. union density and to the consequent divergence of the U.S. industrial relations system from those in most OECD countries. Looking to the future, our findings suggest that U.S. unions must make major innovations in their tactics

and policies to regain a position of strength in the private sector.

Blau, Francine D.

PD September 1990. TI Women's Work, Women's Lives: A Comparative Economic Perspective. AU Blau, Francine D.; Ferber, Marianne A. AA University of Illinois, Urbana-Champaign. SR National Bureau of Economic Research Working Paper: 3447; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 32. PR \$2.00. JE 917, 824. KW Discrimination. Gender Gap. Labor Supply. Earnings.

AB This chapter provides a broad overview of women's economic status in all parts of the world, with special emphasis on their position relative to men. Large differences are found among countries and regions in the size of the gender gap with respect to such measures as labor force participation, occupational segregation, earnings, education, and to a somewhat lesser degree the amount of time spent on housework. Two generalizations, however, hold. Women have not achieved full equality anywhere, but particularly in the advanced industrialized countries for which data on the relevant variables are more readily available, there is evidence of a reduction of gender differences in economic roles and outcomes.

PD September 1990. TI Career Plans and Expectations of Young Women and Men: The Earnings Gap and Labor Force Participation. AU Blau, Francine D.; Ferber, Marianne A. AA University of Illinois, Urbana-Champaign. SR National Bureau of Economic Research Working Paper: 3445; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 23. PR \$2.00. JE 917, 824, 821. KW Labor Force Participation. Earnings. Employment. Gender Gap. Discrimination.

AB Using detailed information on the career plans and earnings expectations of college business school seniors, we test the hypothesis that women who plan to work intermittently choose jobs with lower rewards to work experience in return for lower penalties for labor force interruptions. We find that while men and women expect similar starting salaries, women anticipate considerably lower earnings in subsequent years, even under the assumption of continuous employment after leaving school. While it is also true that women in the sample plan to work fewer years than men, these differences do not explain the observed gender differences in expected earnings profiles. We also find no evidence that gender differences in expected earnings have any effect on the number of years these women plan to be in the labor market.

Blinder, Alan S.

PD August 1990. TI The Resurgence of Inventory Research: What Have We Learned? AU Blinder, Alan S.; Maccini, Louis J. AA Blinder: Princeton University. Maccini: Johns Hopkins University. SR National Bureau of Economic Research Working Paper: 3408; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 47. PR \$2.00. JE 522, 133, 023, 611. KW Inventory. Production. Business Investment. Stabilization Theory. Firm Theory.

AB Recent empirical and theoretical research on business inventories is surveyed and critically evaluated. While most inventory research has had macroeconomic motivations, we

focus on its microtheoretic basis and on potential conflicts between theory and evidence. The paper asks two principal questions. First, how can inventories, which are allegedly used by firms to stabilize production, nonetheless be a destabilizing factor at the macroeconomic level? Second, why, if firms are following the production smoothing model, is production more variable than sales in many industries? We suggest that the so-called (S,s) model may help answer both questions.

Blomstrom, Magnus

PD August 1990. TI Foreign Firms and Export Performance in Developing Countries: Lessons from the Debt Crisis. AU Blomstrom, Magnus; Lipsey, Robert E. AA Blomstrom: Stockholm School of Economics and National Bureau of Economic Research. Lipsey: City University of New York and National Bureau of Economic Research. SR National Bureau of Economic Research Working Paper: 3412; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 33. PR \$2.00. JE 121, 442, 443, 411. KW Developing Countries. Debt Crisis. Multinationals. Exports.

AB This paper compares U.S.-owned affiliates with other firms in developing countries with respect to the shifts in sales from home to export markets in response to the debt crisis of the early 1980s. The U.S. affiliates in heavily indebted countries increased their exports and the share of their production exported more rapidly than other firms did after 1982, while affiliates in less indebted countries did neither. However, a large part of the shift in sales by affiliates in the heavily indebted countries involved sharp reductions in local sales, often larger than the growth in exports.

Bloom, David E.

PD August 1990. TI Modeling American Marriage Patterns. AU Bloom, David E.; Bennett, Neil G. AA Bloom: Columbia University. Bennett: Yale University. SR National Bureau of Economic Research Working Paper: 3425; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 21. PR \$2.00. JE 921, 841. KW Consumer Economics. Marriage. Education.

AB This paper investigates the application of the three parameter, Coale-McNeil marriage model and some related hyper-parameterized specifications to data on the first marriage patterns of American women. Because the model is parametric, it can be used to estimate the parameters of the marriage process, free of censoring bias, for cohorts that have yet to complete their first marriage experience. Empirical evidence from three surveys is reported on the ability of the model to replicate and project observed marriage behavior. The results indicate that the model can be a useful tool for analyzing cohort marriage data and that recent cohorts are showing relatively strong proclivities to both delay and forego marriage.

TI Fertility Timing, Wages, and Human Capital. AU Blackburn, McKinley L.; Neumark, David; Bloom, David E.

TI Lawyers as Agents of the Devil in a Prisoner's Dilemma Game. AU Ashenfelter, Orley; Bloom, David E.

Boadway, Robin W.

PD September 1990. TI The Use of Public Expenditures for Distributive Purposes. AU Boadway, Robin W.;

Marchand, Maurice. AA B roadway: Queen's University. Marchand: Universite Catholique de Louvain. SR Queen's Institute for Economic Research Discussion Paper: 796; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 25. PR \$3.00 Canada and U.S.; \$3.50 Foreign. JE H21, H23, H50. KW Public Expenditures. Government Spending. Welfare Programs. Taxes. AB Governments typically use expenditures extensively as redistributive devices. Examples include the public provision of health, education, welfare, and public pensions. The purpose of this paper is to investigate the normative rationale for such policies. In particular, we study the role of government expenditures as purely redistributive devices given that the government also has available to it an optimal non-linear income tax. We do so in the context of specific types of quasi-private expenditures meant to represent education and pensions, both of which could have been provided privately. We assume that public provision to an individual cannot be related to individual characteristics or income, so it is uniform across individuals. We derive a set of sufficient conditions for the use of public expenditures in the presence of optimal taxes.

Boeri, Tito

PD October 1990. TI Homogenization, Specialization, and the Sharing of Output Growth between Incumbents and Entrants. AA New York University. SR New York University Economic Research Reports: 90-49; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. PG 31. PR no charge. JE L11, L23, L22. KW Specialization. Output. Market Structure. Industrial Organization. Growth Rates.

AB A model is developed which focuses on the relation between output growth and product specialization of firms. This makes it possible to analyze the sharing of output growth between incumbents and entrants resulting after the occurrence of a demand shock. As shown in the paper, the empirical implications of the model are consistent with some otherwise unexplained stylized facts of the process of firm growth. In particular, the model generates a strong positive correlation between entry and exit rates across industries, a large dispersion of growth rates of incumbents even within well-defined sectors, and predicts that industry expansion is in the long-run accommodated by the entry of new firms as opposed to the growth of incumbents. Finally, the model mimics observed patterns of autocorrelation of growth rates of firms.

Boersch-Supan, Axel

PD May 1990. TI The Provision of Time to the Elderly by their Children. AU Boersch-Supan, Axel; Gokhale, Jagadeesh; Kotlikoff, Laurence J.; Morris, John. AA Boersch-Supan: University of Mannheim. Gokhale and Kotlikoff: Boston University. Morris: Hebrew Rehabilitation Center for the Aged. SR National Bureau of Economic Research Working Paper: 3363; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 37. PR \$2.00. JE J13, J14. KW Elderly. Altruism. Demographics. Tobit Model. Children.

AB This paper uses matched data on the elderly and their children to study the provision of time by children to the elderly. It develops a Tobit model as well as a structural model to analyze the determinants of this decision. The main determinants of the amount of time given to parents appear to

be the parent's age, reported health, and institutionalization status, and the children's age, health, and sex. In contrast to these demographic determinants, economic variables, such as children's wage rate and income levels, appear to play a rather insignificant role in the provision of time. In addition, the evidence does not support the hypothesis that parents purchase time from their children.

Bofinger, Peter

PD August 1990. TI The Role of Monetary Policy in the Process of Economic Reform in Eastern Europe. AA Landeszentralbank in Baden-Wuerttemberg. SR Centre for Economic Policy Research Discussion Paper: 457; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. PG 21. PR 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. JE E31, E58, E52. KW Europe. Inflation. Central Bank. Monetary Policy.

AB The first part of the paper analyzes the inflationary risks associated with price liberalization, the welfare costs of inflation and the difficulties of East European central banks in pursuing non-inflationary policies. The main obstacles are the low credibility of stabilization policies and a strategy problem, which is related to the high instability of real and financial sectors. The second part analyzes three options of an ecu-peg for East European currencies: a unilateral peg to the ECU, membership in the Exchange Rate Mechanism of the European Monetary System, and participation in a future European Monetary Union (EMU).

PD August 1990. TI A Multilateral Payments Union for Eastern Europe? AA Landeszentralbank in Baden-Wuerttemberg. SR Centre for Economic Policy Research Discussion Paper: 458; 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 F33, O52, F15. KW Europe. Economic Integration. Current Account.

AB The paper analyzes the role of a multilateral payments union (PU) between East European countries (EPU) as an intermediate solution in the process to full convertibility. After a description of the main functions of a PU, which is based on the historical model of the European Payments Union, it identifies the conditions that justify a PU with trade restrictions vis-a-vis outside countries: above all the existence of unsustainable trade deficits under full convertibility. The paper compares the underlying conditions in East European countries with the situation of the EPU member countries and concludes that an EPU does not have the potential to repeat the successful performance of the EPU. In addition, it shows that prospective fundamental current account deficits of East European countries can only be estimated after a comprehensive concept of the international monetary integration of East European countries has been developed.

Bohi, Douglas R.

PD March 1990. TI Emissions Trading in the Electric Utility Industry. AU Bohi, Douglas R.; Burtraw, Dallas; Krupnick, Alan J.; Stalon, Charles G. AA Resources for the Future. SR Resources for the Future Quality of the Environment Division Discussion Paper: QE90-15; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. PG 41. PR \$2.25 prepaid (U.S. funds only). JE 614, 613, 635. KW Electric

Utilities. Electricity. Public Utilities. Regulation.

AB This paper addresses two questions that underlie the debate over using tradable emissions allowances to control electric utility emissions: whether public utility regulation will undermine the effectiveness of a trading mechanism and whether means of distributing allowances will be compatible with an active and efficient market. The paper concludes with a recommended design for an allowance program that involves endowing existing utilities with tradable and bankable allowances and creating a small set-aside of allowances for yearly auction to new generators.

Boldrin, Michele

PD January 1991. **TI** Dynamic Externalities, Multiple Equilibria and Growth. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 918; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 44. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** D31, D91, O41. **KW** Externalities. Overlapping Generations. Economic Development. Income Distribution. Growth Models. **AB** In this paper I consider an OLG model with production and a single commodity. I show that in such an environment unbounded growth of income per capita is not possible if the aggregate technology is of the usual constant returns to scale type. This is not due to lack of productivity of the capital stock in the long run but, rather, to inappropriate distribution of income across generations, which makes it impossible for the young savers to afford buying the existing stock of capital. I then introduce an external effect, due to the stock of capital, in the aggregate production function and derive conditions under which persistent growth is an equilibrium outcome.

Bonomo, Marco

PD September 1990. **TI** Mean Reversion in Equilibrium Asset Prices: Comment. **AU** Bonomo, Marco; Garcia, Rene. **AA** Princeton University. **SR** Princeton Financial Research Center Memorandum: 120; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 32. **PR** \$3.00 U.S.; \$6.00 (foreign mailings) or by yearly subscription rate. **JE** G12, G14. **KW** Asset Pricing. Stock Returns. Stock Market. **AB** In a recent paper, Cechetti, Lam and Mark (1990a) intended to demonstrate that negative serial correlation in long horizon stock returns was consistent with an equilibrium model of asset pricing. In this comment, we show that this equilibrium model is based on a misspecification of the Markov Switching Model for the endowment process and on a strong assumption about the knowledge of the future state of the economy by the representative agent. Once the proper Markov specification is chosen for the endowment process and the normal assumption is made about the agent knowledge, the model does not produce mean reversion of the magnitude detected in the data. Furthermore, the small amount of mean reversion produced by the model is due to small sample bias.

Bordo, Michael D.

PD May 1990. **TI** The Gold Standard as a Rule. **AU** Bordo, Michael D.; Kydland, Finn E. **AA** Bordo: Rutgers University. Kydland: Carnegie Mellon University. **SR** National Bureau of Economic Research Working Paper: 3367; National Bureau of Economic Research, 1050

Massachusetts Avenue, Cambridge, MA 02138. **PG** 50. **PR** \$2.00. **JE** N21, N23. **KW** Gold Standard. Monetary Policy. Economic History. Europe.

AB In this paper, we show that the monetary rule followed by a number of key countries, especially England and to a lesser extent the U.S., before 1914 represented a commitment technology preventing the monetary authorities from changing planned future policy. The experiences of these major countries suggest that the gold standard was intended as a contingent rule. By that, we mean, that the authorities could temporarily abandon the fixed price of gold during a wartime emergency on the understanding that convertibility at the original price of gold would be restored when the emergency passed. The experiences of other countries, however, suggest that the gold standard rule was often viewed more as a desirable goal than an operational constraint.

Borjas, George J.

PD August 1990. **TI** Immigrant Participation in the Welfare System. **AU** Borjas, George J.; Trejo, Stephen J. **AA** Borjas: University of California, San Diego. Trejo: University of California, Santa Barbara. **SR** National Bureau of Economic Research Working Paper: 3423; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$2.00. **JE** 823, 911, 841, 921. **KW** Welfare System. Immigrants. Demographics.

AB This paper presents an empirical analysis of immigrant participation in the welfare system using the 1970 and 1980 U.S. Censuses. The availability of two cross-sections allows for identification of cohort and assimilation effects. The data indicate that recent immigrant cohorts use the welfare system more intensively than earlier cohorts. In addition, the longer an immigrant household has been in the United States, the more likely it is to receive welfare. The analysis also suggests that a single factor, the changing national origin mix of the immigrant flow, accounts for much of the increase in welfare participation rates across successive immigrant waves.

Bound, John

PD September 1990. **TI** Disability Transfers and the Labor Force Attachment of Older Men: Evidence from the Historical Record. **AU** Bound, John; Waidmann, Timothy. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 3437; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 56. **PR** \$2.00. **JE** 824, 822, 813, 826. **KW** Disability. Labor Force. Health. Elderly. Employment.

AB In this paper we use trends in self-reported disability from the late forties through the late eighties to gauge the impact of the growth of income maintenance for the disabled on the labor force attachment of older working-aged men. Under the assumption that the actual health of these men has not changed, we can use the trends in self-reported disability to make inferences about the disincentive effects of disability transfers. Our tabulations suggest that, for the post World War II period, earlier accommodation of health problems accounts for between two and three-fifths of the 4.9 percentage point drop in the labor force participation of men aged 45-54 and between one-quarter and one-third of the 19.9 percentage point drop among men aged 55-64.

Bover, Olympia

TI Another Look at the Instrumental-Variable Estimation of Error-Components Models. **AU** Arellano, Manuel; Bover, Olympia.

Boycko, Maxim

TI Popular Attitudes towards Free Markets: The Soviet Union and the United States Compared. **AU** Shiller, Robert J.; Boycko, Maxim; Korobov, Vladimir.

Boylan, Richard T.

PD August 1990. **TI** Laws of Large Numbers for Dynamical Systems with Randomly Matched Individuals. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 748; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 23. **PR** no charge. **JE** 026, 213. **KW** Dynamic System. Law of Large Numbers. Evolution. Deterministic Model. Population.

AB Biologists and economists have analyzed populations where each individual interacts with randomly selected individuals. The random matching generates a very complicated stochastic system. Consequently evolutionary biologists have approximated such a system by a deterministic system. The justification of such an approximation is that the population is assumed to be very large and thus some law of large numbers must hold. In this paper we give an example for which this assumption does not hold. We then show that if we assume that the population is infinite then the stochastic and the deterministic system are the same. Finally, we show that if the process lasts finitely many periods and if the population is large enough then the deterministic model offers a good approximation of the stochastic model. In doing so we make precise what we mean by population, matching process, and evolution of the population.

Branson, William H.

PD March 1990. **TI** Financial Market Integration, Macroeconomic Policy and the EMS. **AA** Princeton University. **SR** Centre for Economic Policy Research Discussion Paper: 385; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 44. **PR** 2.00 pounds (\$4.00). **JE** 423, 431, 432, 321, 311. **KW** Financial Integration. European Monetary System. Fiscal Policy. Intermediation. Financial Markets.

AB The new and prospective entrants to the EC join an economic environment that itself is undergoing rapid change. The combination of the European Monetary System (EMS) and the integration of European financial markets in 1992 will alter substantially the environment of monetary and fiscal policy in Europe. This paper reviews the constraints placed on macroeconomic policy and the remaining options, in a system that appears to be integrating with regard to monetary, but not fiscal, policy. We begin by noting that integration is taking place at a time when the countries in Europe have large and persistent current account imbalances, and discuss the conditions under which these will be automatically financed within Europe.

Brauer, David A.

PD October 1989. **TI** Does Centralized Collective Bargaining Lead to Wage Restraint? The Case of Israel.

AA Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8916; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 33. **PR** no charge. **JE** J51, J31, E24. **KW** Collective Bargaining. Wages. Israel. Corporatism.

AB This study examines whether centralized collective bargaining promoted wage restraint in Israel in the period 1968-84. Wage determination in Israel appears to be highly centralized, and the author shows that wage increases under central settlements during the period studied were almost invariably consistent with the goal of preserving competitiveness. Except in periods when there was consensus among major interest groups that sacrifice was necessary, however, wage drift tended to render the central federation's exercise of restraint ineffective. These results, the author concludes, support the view that consensus, and not the structure of collective bargaining per se, is the key to success in "corporatist" economies.

Broadberry, S. N.

TI The Implications of British Macroeconomic Policy in the 1930s for Long Run Growth Performance. **AU** Crafts, N. F. R.; Broadberry, S. N.

Brociner, Andrew

PD January 1990. **TI** Credibility and the Thatcher Regime: Evidence from the Financial Market. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 11/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 33. **PR** not available. **JE** 134, 311, 133, 132. **KW** Expectations. Inflation. Interest Rates. Term Structure. Monetary Policy.

AB This paper tests for credibility in the Thatcher change in regime. The tests are conducted for a model of the term structure of interest rates, which suggest that the Thatcher regime change was credible. The paper then examines whether this shift in the term structure was caused by short term interest rates or by inflation. The results show that while the parameters of short term interest rates remained stable following the Thatcher change in regime, the variance of the inflation rate did not, which may indicate a change in inflationary expectations.

PD March 1990. **TI** Credibility and Fiscal Policy in the EMS. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 12/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 37. **PR** not available. **JE** 321, 322, 423, 432. **KW** Fiscal Policy. Open Economy. Government Spending. Policy Coordination.

AB This paper considers the issue of fiscal constraints proposed by the Delors Report. The Barro-Gordon credibility framework is adapted to an open economy with fiscal policy as the instrument. This shows that credibility acts as a sufficient constraint that fiscal targets may be unnecessary. When stochastic disturbances are considered, however, this constraint appears more relevant. The analysis is then extended to a game between two countries and finds that not only can countries gain as much by choosing noncooperative strategies as by coordinating their fiscal policies, but they can even attain the cooperative precommitment (the first best) outcome. Monetary and fiscal policies are then examined in the form of a coordinated price rule set by two central banks. The result that

the first best solution can be attained by playing noncooperatively still holds.

Brown, William

TI Regional Earnings and Pay Flexibility. **AU** Walsh, Janet; Brown, William.

Brueckner, Jan K.

PD September 1990. **TI** Tastes, Skills, and Local Public Goods. **AA** University of Illinois at Urbana-Champaign. **SR** Queen's John Deutsch Institute Discussion Paper: 8; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 29. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** H41, H72, H31. **KW** Public Goods. Public Finance. Consumer Preferences. Clubs.

AB This paper offers a framework of analyzing optimal club configurations in an economy where different types of labor are complementary in the production of private goods, extending the work of Berglas (1976a). The analysis shows that when labor types are nonessential in production, a homogeneous club configuration may be optimal despite the presence of labor complementarity (the assumption that inputs are essential precluded this outcome in Berglas' model). Homogeneous clubs are likely to be optimal when complementarity is weak or when preferences are substantially different.

Brunner, Allan D.

PD December 1990. **TI** Conditional Asymmetries in Real GNP: A Semiparametric Approach. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 140; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 33. **PR** no charge. **JE** 131, 212. **KW** Conditional Asymmetry. Heteroskedasticity. Economic Fluctuations. Time Series.

AB Two critical assumptions are often made in empirical research regarding the relationship between economic variables and economic disturbances -- linearity and Gaussianity. Together, these two assumptions place strong restrictions on the time series behavior of the model. Most importantly, these restrictions imply conditional symmetry. Using semiparametric (SNP) techniques, this paper presents evidence that real GNP growth displays conditional asymmetry. Although these results confirm related results by Brock and Sayers (1988), Sichel (1988), and Hamilton (1989), the SNP approach is novel in that it emphasizes the relationship between common modeling assumptions and the restrictions that these assumptions place on the data.

PD December 1990. **TI** Are Higher Levels of Inflation Less Predictable? A State-Dependent Conditional Heteroskedasticity Approach. **AU** Brunner, Allan D.; Hess, Gregory D. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 141; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 30. **PR** no charge. **JE** 134, 212, 211. **KW** ARCH Models. Heteroskedasticity. Inflation.

AB We introduce the concept of state dependent models (SDMs) of conditional heteroskedasticity in order to estimate the time varying conditional variance of inflation. SDMs allow us to directly test Milton Friedman's hypothesis that higher

levels of inflation are less predictable, as well as nest several alternative models such as ARCH, GARCH and Rx models of conditional heteroskedasticity. In contrast to the existing literature, we find that higher levels of inflation are less predictable in U.S. postwar quarterly data. We find that this relationship holds for two sample periods -- 1947:II through 1990:II and 1954:I through 1990:II -- and for all inflationary episodes during these sample periods. We also find, however, that the conditional variance of inflation in the late 1940s and early 1950s has somewhat different time series properties than inflation in the 1970s.

Bucovetsky, Sam

PD July 1990. **TI** Factor Ownership Taxes and Trade. **AA** University of Western Ontario. **SR** Queen's John Deutsch Institute Discussion Paper: 7; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 37. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** R13, R11, H71, H77. **KW** Capital Flight. Regional Economics. Taxes. Capital Mobility.

AB This paper examines the incentives of regions to tax the capital employed within their boundaries. The question is whether such incentives exist when the revenue from the tax is not needed to finance the public sector. It is assumed that capital is mobile between regions, and that labor is completely immobile. Each region can produce the same two tradeable goods, using the same technology. Thus tax differences must lead to some specialization. It turns out that differences in the ownership of capital per person between the regions are necessary for these tax differences to emerge in equilibrium. If these ownership differences are large enough, the region whose residents own less capital will levy a higher tax on capital, in order to reduce the net return to capital, even though this tax leads to capital flight, and specialization in production of the labor intensive good.

Burda, Michael C.

PD August 1990. **TI** The Consequences of German Economic and Monetary Union. **AA** INSEAD. **SR** Centre for Economic Policy Research Discussion Paper: 449; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 34. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** O52, R13, O11. **KW** Economic Integration. Germany. Regional Economics.

AB This paper analyzes some of the consequences of economic and monetary union of the two Germanies. Particular emphasis is given to the real implications for the supply side of the German Democratic Republic and for resource flows between two economic regions.

PD August 1990. **TI** Gross Labor Market Flows in Europe: Some Stylized Facts. **AU** Burda, Michael C.; Wyplosz, Charles. **AA** INSEAD. **SR** Centre for Economic Policy Research Discussion Paper: 439; 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** J64, E32. **KW** Labor Force. Unemployment. Business Cycle.

AB The purpose of this paper is to establish some stylized facts on gross labor market flows - using mostly new data from France, Germany, the United Kingdom and the United States - which any theory of unemployment ought to explain. The regularities on gross labor market flows that we isolate are

inconsistent with a large class of theories of labor markets and business cycles. Key results are: flows into and out of unemployment are countercyclical; these flows move tightly together, over both the cycle and the long run; the bulk of exits from unemployment actually represent job findings rather than exits from the labor force; employment inflows and outflows are procyclical.

Burke, S. P.

PD June 1990. **TI** Modified Rainbow Tests. **AU** Burke, S. P.; Godfrey, L. G.; McAleer, Michael. **AA** Burke: University of Reading. Godfrey: University of York. McAleer: Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 213; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 29. **PR** not available. **JE** 211, 132. **KW** Misspecification Test. Diagnostic Tests. Monte Carlo. Linear Regression Model. Simulation Model. **AB** The rainbow test of Utts (1982) for testing a linear regression model against a broad range of alternatives is examined. Since the rainbow test is vulnerable to non-normality, even in large samples, two modifications of the test based upon a finite number of test indicators are proposed. The modified tests are derived by comparing alternative estimators of the parameters of the regression model. The small sample properties of the original rainbow test, the two modifications derived in this paper, and two other diagnostic tests are investigated by means of Monte Carlo experiments, as is their robustness to non-normality.

Burridge, Peter

PD January 1990. **TI** The Functional Central Limit Theorem: An Introductory Exposition with Application to Testing for Unit Roots in Economic Time Series. **AA** University of Birmingham. **SR** Monash Department of Econometrics Working Paper: 1/90; Monash University, Clayton, Victoria 3168, Australia. **PG** 48. **PR** no charge. **JE** 211. **KW** Central Limit Theorem. Unit Roots. Invariance. Brownian Motion. **AB** An introductory account of the functional CLT is given which assumes minimal prior knowledge of rigorous probability theory. Both Billingsley's and Pollard's approaches to convergence of stochastic processes are outlined in some detail, and the discussion is illustrated with numerous examples. Proofs, either full or sketches, are included when this aids understanding. Application of the CLT to unit root problems in time series is illustrated by some results from a recent paper by Philli.

Burtraw, Dallas

TI Emissions Trading in the Electric Utility Industry. **AU** Bohi, Douglas R.; Burtraw, Dallas; Krupnick, Alan J.; Stalon, Charles G.

PD May 1990. **TI** Bargaining with Noisy Delegation. **AA** Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-19; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 40. **PR** \$2.25 prepaid (U.S. funds only). **JE** 022, 026. **KW** Bargaining. Principal-Agent Theory. Nash Equilibrium. Delegation. Preferences. Uncertainty.

AB Principals have the opportunity to delegate to an agent in the context of the Nash bargaining model, but principals are

uncertain over the exact preferences of their agents. Equivalently, principals tremble in implementing their strategies. Numerical methods are used to find a unique equilibrium in the principals' strategies for specific functional forms of the utility functions and probability distributions. The introduction of uncertainty in delegation yields a unique Nash equilibrium in which disagreement occurs with a positive probability. Comparative statics reveal several findings about the role of uncertainty. The advantage stemming from the risk sensitivity of the Nash bargaining solution is mitigated but not eliminated. As uncertainty goes to zero, this procedure selects a unique limiting equilibrium in the set of multiple equilibria that result in a model in which principals delegate without trembles.

PD June 1990. **TI** The Incentive Contract for Strategic Delegation in Bargaining. **AA** Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-18; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 36. **PR** \$2.25 prepaid (U.S. funds only). **JE** 022, 026. **KW** Bargaining. Delegation. Principal-Agent Theory. Game Theory.

AB Principals have the opportunity to delegate to an agent in the context of the Nash bargaining model. The optimal contract is shown to be increasing monotonically. Criteria are found for disqualifying discontinuous "forcing" contracts, and the optimal continuous contract is identified. In equilibrium, the utility possibility frontier for the agent's negotiation will be linear and the measure of absolute risk aversion of the agents will sum to zero for each feasible outcome. In a game with two-sided delegation, multiple equilibria exist in the choice of contracts and the division of the gains from bargaining, but the equilibria are restricted. This paper resolves a shortcoming in the distortion of preferences literature and offers a specific institutional structure through which players credibly precommit.

Buschena, David E.

PD August 1990. **TI** The Creation of Dominant Firm Market Power in the Coconut Oil Export Market. **AU** Buschena, David E.; Perloff, Jeffrey M. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 554; 207 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 28. **PR** \$6.20. **JE** F14, F17, Q17. **KW** Exports. Coconut Oil. International Trade. Market Power. Philippines.

AB Legal and institutional changes that centralized control of the Philippine coconut oil refining and exporting industries enabled the Philippines to exercise some of its potential dominant-firm market power. If the elasticity of demand for coconut oil continues to increase, in part due to concerns about the health risks from eating saturated fats, Philippine exports will increase slightly while the price and Philippine revenue will fall significantly within the next decade.

Buscher, Herbert

TI The Demand for Money in the U.S., U.K., Japan and West Germany: An Empirical Study of the Evidence since 1973. **AU** Frowen, Stephen F.; Buscher, Herbert.

Cai, Jinyong

TI U.S. Demographics and Savings: Predictions of Three Saving Models. **AU** Auerbach, Alan J.; Cai, Jinyong;

Kotlikoff, Laurence J.

Camerer, Colin

TI An Experimental Analysis of Nash Refinements in Signaling Games. **AU** Banks, Jeffrey; Camerer, Colin; Porter, David.

Cameron, A. Colin

PD September 1990. **TI** Conditional Moment Tests with Explicit Alternatives. **AU** Cameron, A. Colin; Trivedi, Pravin K. **AA** Cameron: University of California at Davis. Trivedi: Indiana University. **SR** University of California at Davis Economics Department Working Paper: 366; Department of Economics, University of California at Davis, Davis, California 95616-8578. **PG** 41. **PR** no charge. **JE** C12. **KW** Diagnostic Tests. Specification Tests. Linear Models. Heteroskedasticity. Polynomials.

AB The conditional moment (CM) tests of Newey (1985) and Tauchen (1985) were developed as diagnostic tests of whether or not a moment condition holds. In this paper CM tests against an explicit alternative are presented. In many testing situations this is the natural way to proceed in constructing tests, mirroring the procedure used for classical statistical tests. Furthermore, many diagnostic tests such as the information matrix test, apparently without an alternative, can be interpreted as tests against an explicit alternative. The CM tests considered here are motivated by a regression, and are accordingly called regression-based CM tests. Testing can be based directly on this regression, when the moment fundamental to the test satisfies an additional moment condition.

PD December 1990. **TI** The Information Matrix Test and Its Implied Alternative Hypotheses. **AU** Cameron, A. Colin; Trivedi, Pravin K. **AA** Cameron: University of California at Davis. Trivedi: Indiana University. **SR** University of California at Davis Economics Department Working Paper: 372; Department of Economics, University of California at Davis, Davis, California 95616-8578. **PG** 33. **PR** no charge. **JE** C12. **KW** Specification Tests. Information Matrix Tests. Linear Models. Heteroskedasticity. Exponential Family. Hypothesis Testing.

AB The information matrix (IM) test of White (1982) is a model specification test obtained by specifying a null hypothesis model only. A criticism often made is that failure to specify an alternative hypothesis model makes it difficult, in a general setting, to interpret what types of departure the IM test is testing against. In this paper it is shown how the IM test can be interpreted as a test against an alternative hypothesis.

Campbell, John Y.

PD September 1990. **TI** Intertemporal Asset Pricing without Consumption. **AA** Princeton University and National Bureau of Economic Research. **SR** Princeton Financial Research Center Memorandum: 119; Financial Research Center, Department of Economics, Princeton University, Princeton, NJ 08544. **PG** 47. **PR** \$3.00 U.S.; \$6.00 (foreign mailings) or by yearly subscription rate. **JE** G12, D91. **KW** Asset Pricing. Intertemporal Substitution. Risk Premium. Consumption.

AB This paper uses a log-linear approximation to the budget constraint to substitute out consumption from a standard intertemporal asset pricing model. In a homoskedastic lognormal setting, with a consumer's objective function that

distinguishes the elasticity of intertemporal substitution from the coefficient of relative risk aversion, the consumption-wealth ratio is shown to depend on the former parameter, while asset risk premia are determined by the latter. Risk premia are related to the covariances of asset returns with the market return and with news about the discounted value of all future market returns.

Canning, David

PD April 1990. **TI** Social Equilibrium. **AA** Pembroke College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 150; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 28. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** C71, D83. **KW** Nash Equilibrium. Learning. Evolutionary Games. Memory. Repeated Games.

AB This paper considers a game played repeatedly over time by random pairings of agents from a large population. It assumes agents have bounded memory and that each agent bases his beliefs, and actions, on the empirical distribution of strategy choices he has seen in the past. A social equilibrium for the population is a mixed strategy pair, representing the proportion of agents choosing each pure strategy, that is steady over time. A social equilibrium gives rise to a pattern of beliefs in the population that is a steady state of the learning process which agents follow. It is proved that for finite-strategy simultaneous-move games a social equilibrium always exists, and when agents have sufficiently long memories, every social equilibrium is close to a Nash equilibrium.

PD July 1990. **TI** Rationality, Computability and the Limits of Game Theory. **AA** Pembroke College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 152; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 41. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** C70. **KW** Rationality. Game Theory. Nash Equilibrium.

AB Given a game to play a game theory should tell us what to do. A good game theory should be rational, in the sense of prescribing a best reply to the opponent's decision, and complete, in the sense of prescribing an action in every possible situation. If we restrict game theories to be computable algorithms these two criteria are incompatible, a rational game theory must be incomplete. This paper studies limits on the domain of games and opponents for which a rational game theory can be constructed. In particular, a definition of a set of rational agents is proposed such that a computable game theory can be constructed which is rational and complete when restricted to playing rational opponents in games with a strict Nash equilibrium.

PD August 1990. **TI** Inventory Cycles, Disequilibrium Dynamics and Effective Demand. **AA** Pembroke College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 154; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 19. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** D51, E22, E32, D45. **KW** Business Cycle. Inventories. Prices. Rationing. Consumer Demand.

AB A non-market clearing disequilibrium model in which prices adjust in response to effective excess demands in

analyzed. In each period prices are fixed and we calculate a fix price equilibrium of the model, the next period's fixed prices being set as a function of the current period's effective excess demands. Effective excess demands in a model with asset holding differ from Walrasian excess demands because of the spillover effect of anticipated future rationing. Agents form rational expectations of the joint distribution of future prices and rationing constraints when deciding their current demands. The results found by Laroque (1989), who uses a model in which prices respond to Walrasian excess demands, are shown to extend to the case of effective excess demands; under perfect foresight prices converge to the market clearing level but small, random, price shocks generate a cycle of booms and depressions.

Card, David

PD May 1990. **TI** Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States. **AU** Card, David; Krueger, Alan. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 3358; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 47. **PR** \$2.00. **JE** 912, 851. **KW** Education. Human Capital. Schools.

AB This paper estimates the effects of school quality -- measured by the pupil-teacher ratio, the average term length, and the relative pay of teachers -- on the rate of return to education for men born between 1920 and 1949. Using earnings data from the 1980 Census, we find that men who were educated in states with higher quality schools have a higher return to additional years of schooling, holding constant their current state of residence, their state of birth, the average return to education in the region where they currently reside, and other factors. A decrease in the pupil-teacher ratio from 30 to 25, for example, is associated with a 0.4 percentage point increases in the rate of return to education.

Case, Karl E.

PD May 1990. **TI** Forecasting Prices and Excess Returns in the Housing Market. **AU** Case, Karl E.; Schiller, Robert J. **AA** Case: Wellesley College. Shiller: Yale University. **SR** National Bureau of Economic Research Working Paper: 3368; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$2.00. **JE** R21, R31. **KW** Housing Demand. Demographics. Construction. Households.

AB The U.S. market for homes appears not to be efficient. A number of information variables predict housing price changes and excess returns of housing relative to debt over the succeeding year. Price changes observed over one year tend to continue for one more year in the same direction. Construction cost divided by price, the change in per capita real income, the change in adult population are all positively related to price changes or excess returns over the subsequent year. The results are based on time series cross-section regressions with quarterly data 1970-1 to 1987-3 and for cities Atlanta, Chicago, Dallas, and San Francisco.

Chatterjee, Satyajit

PD September 1990. **TI** Participation Dynamics: Sunspots and Cycles. **AU** Chatterjee, Satyajit; Cooper, Russell; Ravikumar, B. **AA** Chatterjee: University of Iowa. Cooper: Boston University. Ravikumar: University of Virginia.

SR National Bureau of Economic Research Working Paper: 3438; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** 611, 133. **KW** Sunspots. Overlapping Generations Model. Product Markets. Imperfect Competition.

AB This paper investigates the possibility of sunspots equilibria and endogenous cycles in an overlapping generations model with strategic interactions. We consider an economy with imperfectly competitive product markets. There is a participation decision on the part of prospective firms and a strategic complementarity emerges from the interaction of firms in their entry decisions both over time and across sectors. When these complementarities are sufficiently strong, multiple steady state equilibria will exist. Sunspot equilibria can then be constructed as randomizations in the neighborhood of these steady states. We relate the properties of our sunspot equilibria to aggregate fluctuations, with particular emphasis on the dynamics of entry and exit.

Chew, S. H.

PD August 1990. **TI** Inertia, Risk Spreading, and the Arrow-Lind Theorem. **AU** Chew, S. H.; Herk, Leonard F. **AA** Chew: University of California, Irvine, National University of Singapore and Tulane University. Herk: Johns Hopkins University and Tulane University. **SR** Johns Hopkins Department of Political Economy Working Paper: 253; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 37. **PR** no charge. **JE** G11, G14, D81. **KW** Heterogeneity. Investment. Expected Utility Theory. Uncertainty. Risk Premium. Portfolio Choice.

AB Arrow and Lind (1970) show that a homogeneous population of expected utility investors has the Arrow-Lind property: the aggregate risk premium for equal shares of an independent investment risk becomes negligible as the number of investors increases. The validity of their theorem extends to the larger class of investment risks which are mean-independent of initial wealth. The Arrow-Lind property implies another property called consensus risk neutrality: for any mean-independent investment with positive expected return, there is an investor pool unanimously willing to undertake the investment. An investor who diversifies in favor of a mean-independent investment only if its expected return is above some positive threshold is said to display inertia. This paper investigates the robustness of the Arrow-Lind theorem for homogeneous as well as heterogeneous investor populations.

PD October 1990. **TI** Mean Independence and Uncorrelatedness. **AU** Chew, S. H.; Herk, Leonard F. **AA** Chew: University of California, Irvine and National University of Singapore. Herk: Johns Hopkins University and Tulane University. **SR** Johns Hopkins Department of Political Economy Working Paper: 258; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 9. **PR** no charge. **JE** C13, C10. **KW** Correlation. Probability Space. Random Variables. Statistics.

AB Let X and Y be rv 's defined on a probability space. Y is strongly uncorrelated with X if Y is uncorrelated with any measurable transformation $f(X)$ for which $E(f(X))$ exists. Y is mean-independent of X if $E(Y|X)=E(Y)$ almost surely. We prove the equivalence of the following statements. (i) Y is strongly uncorrelated with X . (ii) Y is mean-independent of X . (iii) There exist rv 's X' and $\{(S'(n))\}$ for $n=0$ to $n=\infty$ on a

probability space, such that for each n , $S'(n)$ is the sum of zero-mean rv's which are independent of X' , and $(S'(n), X')$ converges in distribution to $(Y - E(Y), X)$.

Chiang, Jeongwen

PD October 1990. **TI** Discrete/Continuous Models of Consumer Demand with Binding Non-Negativity Constraints. **AU** Chiang, Jeongwen; Lee, Lung-Fei. **AA** Chiang: University of Rochester. Lee: University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 261; Department of Economics, 1035 Management and Economics, University of Minnesota, Minneapolis, MN 55455. **PG** 34. **PR** no charge. **JE** D12, C25, C52. **KW** Consumer Demand. Coffee. Consumer Economics. Consumption. Discrete Choice Model. **AB** Consumers in this model are assumed to maximize utility with respect to two goods, one of which is inessential and available in several alternative forms. Decision rules for the consumers are derived for two cases: choosing one alternative or foregoing the consumption of the inessential good. Choice probabilities, the demand equations and the zero-consumption probability are derived and reflect the interrelatedness of the discrete/continuous choices and the binding non-negativity constraint. We show that traditional discrete/continuous choice models yield estimates of demand which are biased and choice probabilities, which in some circumstances, are not biased. The model is then applied to coffee data.

Chow, Gregory C.

PD December 1990. **TI** Capital Formation and Economic Growth in China. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 67; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 41. **PR** no charge. **JE** O53, P24, O11, O16. **KW** Economic Development. Capital Formation. China. Production Function. Developing Countries. **AB** After estimating production functions for China's aggregate economy and for the five sectors, agriculture, industry, construction, transportation and commerce using annual data (some constructed by the author) from 1952 to 1980, this paper measures the contribution of capital formation to the growth of these sectors, the effects of the Great Leap Forward of 1958-62 and the Cultural Revolution of 1966-1976 on outputs, the impact of economic reforms since 1979 on growth, the rates of return to capital and the effects of sectorial growths on relative prices.

Chung, Tai-Yeong

PD November 1990. **TI** Risk Sharing, Specific Investment and Incomplete Contracts. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9015; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 23. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** C78, D74, D81. **KW** Renegotiation. Contracts. Risk. Investment.

AB An optimal contract design problem is considered when contracts must be incomplete and simple. In those situations contracts may specify not only outcome, but an allocation of the ex post decision rights, since there would be gains from an ex post revision or renegotiation. The objective of this paper is to investigate the extent to which constrained revisions can

mitigate inefficiencies resulting from contractual incompleteness. An optimal contract is characterized in two cases. First, when a contract is being used to facilitate trade between two risk neutral parties who must make relationship-specific investments, it is possible to implement the first best outcomes by a simple contract. Second, when a contract is being used to share risk, and there are no specific investments, it is generally not possible to implement the first best outcomes.

Cochrane, John H.

PD September 1990. **TI** Univariate vs. Multivariate Forecasts of GNP Growth and Stock Returns: Evidence and Implications for the Persistence of Shocks, Detrending Methods and Tests of the Permanent Income Hypothesis. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 3427; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$2.00. **JE** 131, 133. **KW** GNP. Stock Prices. Economic Fluctuations. Permanent Income Hypothesis.

AB Lagged GNP growth rates are poor forecasts of future GNP growth rates in postwar U.S. data, leading to the impression that GNP is nearly a random walk. However, other variables, and especially the lagged consumption/GNP ratio, do forecast long-horizon GNP growth, and show that GNP has temporary components. Labor income and stock prices (using the dividend/price ratio) display the same behavior. This paper documents these facts and examines their implications for the persistence of shocks to GNP and time variation in expected stock returns.

Cogan, John F.

PD July 1990. **TI** Domestic Discretionary Spending in the 1980's. **AU** Cogan, John F.; Muris, Timothy J. **AA** Cogan: Stanford University. Muris: George Mason University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-19; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 62. **PR** not available. **JE** H61, H52, H53. **KW** National Income Accounting. National Budget. Government Expenditures. Government Spending.

AB This paper examines changes in non-entitlement domestic spending during the period 1981-89. A commonly held view about the federal budget during the 1980s is that this category of spending was "pared to the bone." Our analysis challenges this conventional wisdom. We find that in the aggregate, domestic discretionary spending increased nearly at the rate of overall inflation in the economy; hence the 1980s were not a decade of severe cuts in domestic discretionary programs. Instead, the period is more appropriately characterized as one year of deep budget cuts, 1982, followed by seven years of rapid budget growth. By the end of the eight year period this budget growth had restored the aggregate domestic discretionary spending to its 1981 constant dollar level. The prevailing wisdom about aggregate non-entitlement domestic spending reductions is wrong because it is based on an incorrect understanding of conventional budget data.

Cohen, Daniel

PD August 1990. **TI** Price and Trade Effects of Exchange Rate Fluctuations and the Design of Policy Coordination. **AU** Cohen, Daniel; Wyplosz, Charles. **AA** Cohen: CEPREMAP. Wyplosz: INSEAD. **SR** Centre for Economic

Policy Research Discussion Paper: 440; 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** E63, F11, F31. **KW** Policy Coordination. Exchange Rates. Trade Model. Monetary Policy. Fiscal Policy.

AB We analyze a two-country zone facing a joint inflationary shock and responding with coordinated and uncoordinated monetary and fiscal policies. We show that the standard presumption that the absence of coordination results in an excessive exchange rate appreciation of the zone with respect to the rest of the world hinges on a specific assumption: that within the two countries considered, the price effect of exchange rate fluctuations dominates the trade effects relatively to the corresponding effects vis-a-vis the rest of the world. If the relative hierarchy goes the other way around (as we argue is likely for EC countries), the standard conclusion is reversed, resulting in insufficiently active monetary and fiscal policies. The paper considers asymmetric shocks as well as monetary policy coordination.

Collier, Paul

TI Temporary Trade Shocks and Dynamic Adjustment. **AU** Bevan, David L.; Collier, Paul; Gunning, Jan W.

TI Price Controls and the Transition to Market Clearing: Theory and an Application to Tanzania. **AU** Bevan, David L.; Collier, Paul; Gunning, Jan W.

Cooper, Russell

TI Participation Dynamics: Sunspots and Cycles. **AU** Chatterjee, Satyajit; Cooper, Russell; Ravikumar, B.

Courakis, Anthony S.

PD May 1990. **TI** Public Expenditure Growth in Greece and Portugal: Wagner's Law and Beyond. **AU** Courakis, Anthony S.; Moura-Roque, Fatima; Tridimas, George. **AA** Courakis: University of Oxford. Moura-Roque: University Nova de Lisboa. Tridimas: University of Reading. **SR** Oxford Applied Economics Discussion Paper: 90; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 26. **PR** not available. **JE** H61, E63, E21, E25. **KW** Government Expenditures. Fiscal Policy. Government Spending. Income. Greece. Portugal.

AB In the tradition of Wagner's law, this study examines the relationship between aggregate income and public expenditures in Greece and Portugal during the years 1958-85. Unlike more conventional specifications, our analysis focuses on the movement of different components of public expenditures. Permanent income, relative prices, stabilization policy and socio-political factors emerge as the main determinants of public expenditures, while the results reveal significant differences in responses to those determinants across components of expenditures and between the two countries.

Coutts, Kenneth J.

PD August 1990. **TI** Britain's Balance of Payments Hiatus: Some Unpleasant Macroeconomic Arithmetic. **AA** University of Cambridge. **SR** University of Cambridge DAE Working Paper: 9015; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 28.

PR \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** F32, H62, H63. **KW** Balance of Payments. Wealth. Debt. Current Account. Trade Deficit.

AB The paper examines the statistical discrepancy in Britain's balance of payments accounts which has become substantial and persistently of the same sign in recent years. It is argued that the errors are mainly in unrecorded capital inflows and that net external assets and net investment income are significantly overstated. Revised estimates are calculated for the past. A conditional forecast of the current account for the 1990s suggests that unless the trade deficit rapidly returns to balance, Britain could become a heavily indebted country.

Cox, James C.

PD December 1990. **TI** Unemployment Insurance and Job Search. **AU** Cox, James C.; Oaxaca, Ronald L. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-37; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 30. **PR** no charge. **JE** J64, J65, D83. **KW** Unemployment Insurance. Unemployment. Search Theory.

AB This paper examines the relationship between Unemployment Insurance (UI) benefits and the duration of unemployment. We review extant empirical evidence on the question of whether the receipt of UI benefits leads unemployed workers to prolong their spells of unemployment. Our objective is to examine representative studies of UI and worker job search responses with an eye toward eliciting implications for public policy and future research.

PD December 1990. **TI** Tests for a Reservation Wage Effect. **AU** Cox, James C.; Oaxaca, Ronald L. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-38; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 12. **PR** no charge. **JE** D83, C91. **KW** Reservation Wage. Experimental Economics. Commitment.

AB Reservation wages can be elicited by asking experimental subjects to make binding prior commitments to minimum acceptable offers. However, this unusual response mode may itself be a significant treatment, raising questions about how to interpret the data. We pair experimental trials with precommitment with trials in which the subjects' responses are acceptance or rejection of known offers. We find evidence of the presence of a precommitment treatment effect which dissipates with subject experience. We conclude that the precommitment design can provide reliable data after the subjects have some experience with this unusual response mode.

PD December 1990. **TI** Direct Tests of the Reservation Wage Property. **AU** Cox, James C.; Oaxaca, Ronald L. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-39; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 44. **PR** no charge. **JE** D83, C91. **KW** Reservation Wage. Experimental Economics. Search Theory.

AB The reservation wage property is central to many models of sequential search. Indirect tests based on search duration data do not reject either the linear (risk neutral) model or a naive rule. In contrast, direct tests using reservation wages do reject both of them. However, the concave (risk averse or risk neutral) model is not rejected. In addition the availability of observable reservation wage data permits us to evaluate

econometric methods that may be used to infer reservation wages from limited information on all offers received.

Coyte, Peter C.

TI The Medical Malpractice Crisis: A Comparative Empirical Perspective. **AU** Dewees, Donald N.; Trebilcock, Michael J.; Coyte, Peter C.

Crafts, N. F. R.

PD March 1990. **TI** The Implications of British Macroeconomic Policy in the 1930s for Long Run Growth Performance. **AU** Crafts, N. F. R.; Broadberry, S. N. **AA** University of Warwick. **SR** Centre for Economic Policy Research Discussion Paper: 386; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 26. **PR** 2.00 pounds (\$4.00). **JE** 044, 825, 824, 122. **KW** Employment. Productivity Growth. Public Policy.

AB The paper provides a synthesis of recent research relating to supply side policy in the 1930s in a period when government sought to raise prices given sticky wages. We argue that as a politically constrained strategy to limit rises in unemployment this made sense. A bargaining model approach suggests, however, that this had a harmful impact on productivity growth by stifling competitive pressure and retarding rationalization of old industries.

Crichton, Nicola J.

PD July 1990. **TI** An Analysis of the Effect of an Offender's Employment Status on the Type of Sentence Chosen by the Magistrate. **AU** Crichton, Nicola J.; Fry, Timothy R. L. **AA** Crichton: University of Exeter. Fry: Monash University. **SR** Monash Department of Econometrics Working Paper: 8/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 36. **PR** no charge. **JE** 211, 916, 921. **KW** Multinomial Logit. Choice Model. Unemployment. Legal System.

AB In this paper we will consider the problem of estimating a multinomial logit model for choice behavior, when the data has been collected using choice-based sampling. We illustrate the estimation process using a set of data collected by the National Association for the Care and Resettlement of offenders to investigate whether an offender's employment status affected the sentence chosen by the magistrate.

Cropper, Maureen L.

PD January 1990. **TI** Environmental Economics: A Survey. **AU** Cropper, Maureen L.; Oates, Wallace E. **AA** University of Maryland and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-12; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 121. **PR** \$2.25 prepaid (U.S. funds only). **JE** 721, 722, 731, 613. **KW** Environmental Economics. Pollution Control. Environment. Pollution. Conservation.

AB This paper provides a survey of the field of environmental economics with attention to its policy potential. The first half of the survey begins with a review of the theory of environmental regulation and then explores the application of this theory to the design and implementation of environmental policy. It includes a description and assessment of the use of economic incentives for environmental protection. The second

half of the paper turns to the measurement of the costs and benefits of environmental programs. It reviews work by environmental economists both in inferring the value of improved environmental amenities indirectly from related market behavior, and by direct questioning through contingent valuation methods. The concluding section offers some reflections on the state of environmental economics and its potential contribution to the formulation of public policy.

TI The Effect of Information on Health Risk Valuations. **AU** Krupnick, Alan J.; Cropper, Maureen L.

PD March 1990. **TI** Valuing Environmental Health Effects. **AU** Cropper, Maureen L.; Freeman, A. Myrick, III. **AA** Cropper: University of Maryland and Resources for the Future. Freeman: Resources for the Future and Bowdoin College. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-14; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 81. **PR** \$2.25 prepaid (U.S. funds only). **JE** 913, 722, 851. **KW** Health Benefits. Health Status. Health. Pollution. Environment. Morbidity. Mortality.

AB This paper provides a survey of techniques for estimating the value of improved human health associated with the control of environmental pollutants. Topics covered include defining and measuring changes in health status, the willingness to pay for reduced risk of death, and the value of reduced morbidity and risk of chronic disease. Also included are reviews of the results of empirical studies of the value of reduced mortality and morbidity.

PD June 1990. **TI** The Estimation of Consumer Preferences for Attributes: A Comparison of Hedonic and Discrete Choice Approaches. **AU** Cropper, Maureen L.; Deck, Leland; Kishor, Nalin; McConnell, Ted. **AA** Cropper: University of Maryland and Resources for the Future. Deck: Environmental Protection Agency. Kishor: World Bank. McConnell: University of Maryland. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-20; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 55. **PR** \$2.25 prepaid (U.S. funds only). **JE** 932, 931, 212. **KW** Hedonic Model. Welfare Analysis. Consumers. Preferences. Housing. Urban Economics.

AB This paper compares, via simulation, the performance of the multinomial logit and hedonic models in estimating consumer preferences for product attributes. The authors ascribe preferences over the attributes of houses to a population of consumers, and, by having them bid for a set of houses, calculate equilibrium prices. The resulting data are used to estimate the two models. The authors find that the gradient of a linear Box-Cox hedonic price function estimates marginal attribute bids at least as well as a linear logit model, although the difference between the two is small when some variables are not observed or are replaced by proxies. The logit model, however, outperforms the hedonic model in valuing non-marginal attribute changes.

Crosson, Pierre

PD November 1989. **TI** Agriculture in a Changing Environment. **AU** Crosson, Pierre; Rosenberg, Norman J. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-01; Energy and Natural Resources Division, Resources

for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 32. **PR** \$5.00 prepaid (U.S. funds only). **JE** 722, 715, 711, 712, 721. **KW** Agricultural Development. Environmental Costs. Natural Resources. Agricultural Technology.

AB The challenge to global agricultural development is to find ways to meet rising demands for food and fiber, particularly in the developing countries, without imposing higher economic and environmental costs on future generations. Meeting the challenge will require a continuing stream of new agricultural technologies to overcome emerging scarcities of land, water, genetic and other environmental resources and a series of institutional innovations which provide farmers incentive to adopt these technologies on the requisite scale. The system of national and international agricultural research institutions probably is up to the task of technological development. Assuring the necessary institutional innovations likely will be the more difficult problem.

PD January 1990. **TI** The Nation's Cropland and Soils: Past Trends and Current Challenges. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-03; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 76. **PR** \$5.00 prepaid (U.S. funds only). **JE** 717, 713, 712, 722. **KW** Agricultural Productivity. Land Use. Environment. Agricultural Policy.

AB This paper examines the way Americans have used the land to produce crops and with the consequences of this in terms of increased output of crops and environmental services of the land. The great increases in observed agricultural productivity have been accompanied by increased concerns about environmental consequences, though great uncertainties about these consequences remains. The policy issues are found to be challenging but manageable; we need to improve the institutions we already have for managing these problems, rather than constructing new ones.

Cukierman, Alex

PD February 1990. **TI** Seigniorage and Political Instability. **AU** Cukierman, Alex; Edwards, Sebastian; Tabellini, Guido. **AA** Cukierman: Tel Aviv University. Edwards and Tabellini: University of California, Los Angeles. **SR** Centre for Economic Policy Research Discussion Paper: 381; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 34. **PR** 2.00 pounds (\$4.00). **JE** 123, 323, 321, 053. **KW** Seigniorage. Tax Reform. Government Revenue. Political Systems.

AB The importance of seigniorage relative to other sources of government revenue differs markedly across countries. The main theoretical implication of this paper is that countries with more unstable and polarized political systems rely more heavily on seigniorage. This result is obtained within the context of a political model of tax reform. The model implies that the more unstable and polarized the political system, the more inefficient is the equilibrium tax structure (in the sense that tax collection is more costly to administer), and the higher therefore the reliance on seigniorage. This prediction of the model is tested on cross-section data for 79 countries.

Currie, Janet

TI An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew.

TI An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew.

Damme, Eric van

TI Demand Commitment Bargaining - The Case of Apex Games. **AU** Bennett, Elaine; Damme, Eric van.

Danthine, Jean-Pierre

PD May 1990. **TI** Business Cycles as Nonlinear Phenomena: Characterizing Swiss and German Cycles 1965-1988. **AU** Danthine, Jean-Pierre; Neftci, Salih N. **AA** Danthine: University of Lausanne. Neftci: City University of New York and University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9010; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 18. **PR** no charge. **JE** 133, 131, 132. **KW** Spectral Analysis. Business Cycle. Time Series.

AB This paper utilizes traditional time series tools in the frequency domain and a new method for detecting patterns in economic time series, to investigate the existence of "typical" business cycles in Switzerland and Germany. Standard frequency domain techniques suggest that Swiss and German data contain strong cyclical components. These methods are not capable however of treating each cycle as a separate "event", and investigate the degree of their resemblance to typical cycles. They are also not capable of allowing for random intervals to elapse between cycles. Both of these phenomena are nonlinear events and can be studied by the pattern recognition procedure that we used in the paper.

PD August 1990. **TI** Volatility, Information, and Noise Trading. **AU** Danthine, Jean-Pierre; Moresi, Serge. **AA** Danthine: University of Lausanne. Moresi: Massachusetts Institute of Technology. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9015; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 29. **PR** no charge. **JE** 313, 521. **KW** Futures. Price Volatility. Noise Trading. Futures Market.

AB We construct a dynamic competitive model with futures markets where price volatility comes from information arrival and noise trading. In this model, we address three issues: What does informational efficiency mean in a multi-period setting? How do information arrival and noise trading interact to generate price volatility? What are the effects of futures trading on volatility and welfare? Without noise trading, we show that a fully revealing equilibrium price is unlikely to exist if information flows are serially correlated. If it exists, futures trading affects the time pattern of volatility, but volatility over time sums up to a constant.

Darmstadter, Joel

PD August 1990. **TI** Prospects for Reduced Carbon Dioxide Emissions in Automotive Transport. **AU** Darmstadter, Joel; Jones, Andrew S. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural

Resources Division Discussion Paper: ENR90-15; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 52. **PR** \$5.00 prepaid (U.S. funds only). **JE** 722. **KW** Global Warming. Automobile Emissions. Automobiles.

AB This paper discusses how automobiles presently contribute to global carbon dioxide emissions and reviews the factors likely to shape their future contribution. Demographic trends and past experience with increased auto use as economies develop suggest that a staggering number of private vehicles will be in use by the middle of the next century, especially in currently developing economies. To forestall the major increases in carbon dioxide emissions that would result will require some combination of massive increases in fuel efficiency or switching to lower carbon fuels, and restrictions on growth of private auto demand. All of these options are subject to daunting uncertainties.

De Kock, Gabriel

PD September 1989. **TI** Endogenous Exchange Rate Regime Switches. **AU** De Kock, Gabriel; Grilli, Vittorio. **AA** De Kock: Federal Reserve Bank of New York. Grilli: Yale University and National Bureau of Economic Research. **SR** Federal Reserve Bank of New York Research Paper: 8915; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** not available. **PR** no charge. **JE** E42, F31. **KW** Exchange Rates. Seigniorage. Government Policy. Monetary Standards.

AB In this paper we demonstrate that exchange rate regime switching is compatible with optimal government policies. Nominal exchange rate regimes are formalized as equilibrium commitments on future seigniorage policies, and the collapse of an exchange rate peg as an excusable default which allows the government to lump sum tax private sector money holdings. We demonstrate that a regime in which the exchange rate peg is allowed to collapse when government spending is unusually high is a trigger strategy equilibrium. Such a regime can be superior to both a fixed and flexible exchange rate because it combines some of the flexibility of floating exchange rates with some of the benefits of precommitment afforded by fixed rates.

De Long, J. Bradford

PD August 1990. **TI** Did J. P. Morgan's Men Add Value? A Historical Perspective on Financial Capitalism. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 3426; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 35. **PR** \$2.00. **JE** 312, 314, 313, 512, 511. **KW** Securities. Corporations. Banking. Investment Banks. Capitalism. Financial Markets.

AB The pre-WWI period saw the heyday of "financial capitalism" in the United States: The concentration of securities issues in the hands of a few investment bankers which had substantial representation on corporate boards of directors. This form of organization had costs: it created a conflict of interest that allowed investment bankers to heavily tax operating corporations. It also had benefits: investment banker representation on boards allowed bankers to monitor the performance of firm managers, quickly replace managers whose performance was unsatisfactory, and signal to ultimate investors that a company was well managed and fundamentally sound. The presence on one's board of directors of a partner in J.P. Morgan and Company was associated with a rise of perhaps

30 percent in common stock equity value.

de Melo, Jaime

PD March 1990. **TI** Do Exporters Gain From VERs? **AU** de Melo, Jaime; Winters, Alan L. **AA** de Melo: The World Bank. Winters: University of Wales. **SR** Centre for Economic Policy Research Discussion Paper: 383; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 37. **PR** 2.00 pounds (\$4.00). **JE** 422, 631, 611, 442. **KW** Export Restraints. Exports. Manufacturing. Taiwan.

AB Previous literature has concentrated on the rent transfer accruing to exporting countries when a VER is binding. This paper studies the efficiency and distributional effects arising when VERs force factors out of industries in which they are most productive. A theoretical model of the industry under the VER is developed to establish qualitative conditions under which a VER will result in: spillovers of exports to unrestricted markets; industry contraction; and loss in national welfare. Key parameters of demand and supply are estimated for leather footwear exports from Taiwan subject to the USA Orderly Marketing Agreement, and their implications explored in a calibrated simulation exercise.

Deacon, Robert T.

PD April 1990. **TI** Rent-Seeking and the Common Pool. **AU** Deacon, Robert T.; Sonstelie, Jon. **AA** University of California, Santa Barbara. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-13; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 28. **PR** \$5.00 prepaid (U.S. funds only). **JE** 721. **KW** Groundwater. Common Property. Natural Resources.

AB It is well known that competition for rents associated with access to common property resources will dissipate at least part of these rents and clear the market for the resource. The demand for a common property resource depends on the cost of inputs required for using it and on the capacity to combine the resource with other inputs to produce valued final goods. This suggests that a second best strategy for limiting overuse of a common property resource may entail restrictions on the cost or use of other inputs. This paper examines such an approach to the efficient management of common property groundwater resources, e.g., by restricting complementary capital investment. A series of cases shows that the idea has practical relevance if first best management strategies are unattainable.

PD June 1990. **TI** Taxation, Depletion, and Welfare: A Simulation Study of the U.S. Petroleum Resource. **AA** University of California, Santa Barbara. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-10; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 40. **PR** \$5.00 prepaid (U.S. funds only). **JE** 721, 723, 632, 132. **KW** Oil. Petroleum. Energy. Exhaustible Resources.

AB Exhaustible resources in the U.S. are subject to taxes on property value, production, and corporate income. As applied in practice each tax can cause high-grading - - the elimination of incentives to explore, develop, and produce marginal resources - - and each can tilt the time path of production toward present or future. The potential for such tax induced distortions has been shown in the theoretical literature. Due to

the dynamic nature of resource exploitation and the resulting complexity of models developed to study it, however, purely theoretical exercises have been unable to provide detailed results of a sort that could help guide tax policy. The present paper develops a simulation model of the U.S. petroleum resource and uses it to study the effects of taxation on exploration and production.

Deaton, Angus

PD September 1990. **TI** On the Behavior of Commodity Prices. **AU** Deaton, Angus; Laroque, Guy. **AA** Deaton: Princeton University. Laroque: INSEE Direction Generale, France. **SR** National Bureau of Economic Research Working Paper: 3439; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** \$2.00. **JE** 313, 227, 132. **KW** Commodities. Prices. **AB** The classical theory of commodity price determination integrates myopic supply and demand on the one hand with competitive storage (speculation) under rational expectations on the other. Taking into account the fact that inventories must be non-negative, this paper derives from the theory testable implications on the behavior of prices, and makes a first attempt to confront these implications with the empirical evidence. The nonlinearities turn out to be a crucial ingredient in matching the stylized facts, particularly the asymmetries and the sharp upward flares that characterize many commodity prices. The model, simple as it is, goes a long way in reproducing the main features of the data for a range of commodities.

PD September 1990. **TI** Patterns of Aging in Thailand and Cote D'Ivoire. **AU** Deaton, Angus; Paxson, Christina H. **AA** Princeton University. **SR** National Bureau of Economic Research Working Paper: 3436; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$2.00. **JE** 121, 921. **KW** Developing Countries. Living Standards. Income. Consumption. Elderly. Life Cycle Model. Family Composition. **AB** This paper is broadly concerned with the living standards of older people in two contrasting developing countries, Cote d'Ivoire and Thailand. We use a series of household surveys from these two countries to present evidence on factors affecting the living standards of the elderly: Living arrangements, labor force participation, illness, urbanization, income, and consumption. One of the issues we examine is whether life cycle patterns of income and consumption can be detected in the data. We find that labor force participation and individual income patterns follow the standard life cycle hump shapes in both countries, but that average living standards within households are quite flat over the life cycle. The data presented suggest that changes in family composition and living arrangements of the elderly are likely to be more important sources of old age insurance than asset accumulation.

Deck, Leland

TI The Estimation of Consumer Preferences for Attributes: A Comparison of Hedonic and Discrete Choice Approaches. **AU** Cropper, Maureen L.; Deck, Leland; Kishor, Nalin; McConnell, Ted.

Delgado, Francisco

TI Monetary Contracting Between Central Banks and the Design of Sustainable Exchange-Rate Zones. **AU** Dumas, Bernard; Delgado, Francisco.

Demirguc-Kunt, Asli

TI Capital Positions of Japanese Banks. **AU** Kane, Edward J.; Unal, Haluk; Demirguc-Kunt, Asli.

Denny, Kevin

PD May 1990. **TI** Unions and Investment in British Industry. **AU** Denny, Kevin; Nickell, Stephen. **AA** Denny: Institute for Fiscal Studies, London. Nickell: Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 92; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 26. **PR** not available. **JE** J51, E22, L60. **KW** Unions. Investment. Wages. Productivity. Manufacturing.

AB This paper is concerned with the impact of unions on investment in British industry. In the context of an adjustment cost framework, an empirical analysis of investment decisions is presented at the three digit industry level. The impact of unions on investment is divided into direct effects and indirect effects via wages and productivity. The overall results imply that unions tend to reduce the investment rate by between 4 and 13 percent.

Devereux, Michael B.

PD April 1990. **TI** Trade Unions, Non-Binding Wage Agreements, and Capital Accumulation. **AU** Devereux, Michael B.; Lockwood, Ben. **AA** Devereux: Queen's University. Lockwood: Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 14/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 20. **PR** not available. **JE** 831, 832, 111, 022. **KW** Trade Unions. Wage Contracts. Capital Accumulation. Bargaining.

AB This paper provides a counterexample to some recent results of Grout and others which state that in a bargaining situation without binding wage agreements, the capital stock will be biased downwards. In a general equilibrium setting, this result may be reversed. The model is a simple Diamond-type overlapping generations economy where the young supply labor and the old own both capital and shares in firms. In this environment, a move from binding to non-binding wage contracts may increase the capital stock, as will a rise in trade union power. Finally, it is shown that the move to non-binding contracts may increase or decrease steady state utility, but that the non-binding contracts equilibrium is always Pareto inefficient.

Deweese, Donald N.

PD October 1990. **TI** The Medical Malpractice Crisis: A Comparative Empirical Perspective. **AU** Dewees, Donald N.; Trebilcock, Michael J.; Coyte, Peter C. **AA** University of Toronto. **SR** University of Western Ontario Papers in Political Economy: 6; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 55. **PR** no charge. **JE** I11, K10. **KW** Medicine. Malpractice. Liability.

AB The 1980s have seen a crisis in medical malpractice liability in the United States, in Canada, and in the United Kingdom. We have undertaken a detailed empirical study of the Canadian malpractice experience. This paper presents that experience, with two important comparative foci. First, the paper compares the malpractice liability experience in Canada of physicians with that of hospitals, with dentists, engineers,

lawyers, and chartered accountants, and with trends in personal injury claims for automobile accidents. Second, it compares the Canadian medical malpractice liability experience with that in the United States and in the United Kingdom. This comparative approach allows us to suggest factors that have contributed to growth in claims frequency and severity in all three countries, and to reject some popular conceptions about the origins of the crisis.

Diamond, Peter

TI Ranking, Unemployment Duration, and Wages.
AU Blanchard, Olivier Jean; Diamond, Peter.

Dickens, William T.

PD September 1990. **TI** Assuming the Can Opener: Hedonic Wage Estimates and the Value of Life. **AA** University of California, Berkeley. **SR** National Bureau of Economic Research Working Paper: 3446; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 21. **PR** \$2.00. **JE** 824, 821. **KW** Hedonic Model. Wages. Earnings. Work Hazards.
AB Although intuitively appealing, the use of hedonic wage estimates to determine people's willingness to pay to avoid the risk of fatal hazards is fraught with problems. The theoretical basis for such estimates are flawed in a number of important ways. The underlying behavioral model is wrong, there is imperfect information about job hazards, and labor markets do not look like the perfectly competitive model on which the theory depends for its conclusions. Further, there are many serious problems with the techniques used to estimate hedonic wage equations. This paper describes these problems. Not surprisingly, these problems result in a wide range of results with respect to willingness to pay to avoid fatal hazards.

Diebold, Francis X.

PD November 1988. **TI** A Nonparametric Investigation of Duration Dependence in the American Business Cycle. **AU** Diebold, Francis X.; Rudebusch, Glenn D. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 90; Economic Activity Section, Federal Reserve Board, Washington, D.C. 20551. **PG** 32. **PR** no charge. **JE** 131, 133, 023. **KW** Business Cycle. Nonparametric. Duration Dependence. Periodicity.
AB No abstract available.

Donaldson, R. Glen

PD October 1990. **TI** Is the London Stock Exchange a Rationally Efficient Market? **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 58; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 24. **PR** no charge. **JE** G12, G14. **KW** Efficient Markets. Rational Expectations. Asset Pricing. Stock Market. Stock Prices.
AB The Efficient Market Hypothesis (EMH) states that equilibrium security prices are determined by the correct use of all relevant information. This paper finds, however, that stock prices on the LSE generally rise and fall by less than an efficient market would rationally predict when the popularly tracked FTSE index is expected to cross a 00 point "resistance level" (e.g. 2100, 2200, 2300, etc.) and, in those cases when a 00 barrier is successfully broken, that the rate of change in

stock prices is usually greater than rationally expected. This discovery that a piece of rationally irrelevant information -- proximity to some arbitrary reference point in the FTSE index -- can reduce the rational forecast error results in rejection of the EMH.

Douglas, Alan V.

PD November 1990. **TI** Free Cash Flow, Signaling and the Dividend Puzzle. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 798; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 38. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** G35, G32. **KW** Dividends. Corporations. Corporate Policy. Business Finance. Shareholders.

AB The work in this paper contributes to two of the most topical issues in the study of corporate financial policy: Free Cash Flow theory and the Dividend providing a new explanation for the dividend puzzle. It is argued that two types of asymmetric information problems are inherent in the relationship between shareholders (as principals) and managers (as the shareholder's agents), and therefore the payment scheme between them will be designed to mitigate these problems. The conflict of interest between shareholders and managers (such as the free cash flow problem) causes the board of directors (shareholders) to design managerial compensation schedules which are dependent upon a committed payment out of the firm. This paper argues that greater flexibility allowed by a compensation scheme based on dividends instead of debt leads to a preference for dividends in alleviating this agency problem.

Drazen, Allan

TI Why are Stabilizations Delayed? **AU** Alesina, Alberto; Drazen, Allan.

Dufour, Jean-Marie

PD May 1990. **TI** Optimal Invariant Tests for the Autocorrelation Coefficient in Linear Regressions with Stationary or Nonstationary AR(1) Errors. **AU** Dufour, Jean-Marie; King, Maxwell L. **AA** Dufour: University of Montreal. King: Monash University. **SR** Monash Department of Econometrics Working Paper: 4/90; Monash University. Clayton, Victoria 3168, Australia. **PG** 43. **PR** no charge. **JE** 211. **KW** Durbin-Watson Test. Invariance. Unit Roots. Point Optimal Tests. Random Walk. Linear Regression Model.

AB Inference on the autocorrelation coefficient ρ of a linear regression model with first-order autoregressive normal disturbances is studied. Both stationary and nonstationary processes are considered. Locally best and point-optimal invariant tests for any given value of ρ are derived. Special cases of these tests include tests for independence and tests for unit root hypotheses. The powers of alternative tests are compared numerically for a number of selected testing problems and for a range of design matrices. The results suggest that point-optimal tests are usually preferable to locally best tests, especially for testing values of ρ greater than or equal to 0.

Dumas, Bernard

PD September 1990. **TI** Monetary Contracting Between Central Banks and the Design of Sustainable Exchange-Rate

Zones. **AU** Dumas, Bernard; Delgado, Francisco. **AA** Dumas: HEC School of Management, France. Delgado: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 3440; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$2.00. **JE** 431, 441, 311. **KW** Exchange Rates. Foreign Exchange. Central Banks. Bank Reserves. Interest Rates. Speculation.

AB An exchange rate system is a set of contracts which commits Central banks to intervene in the foreign exchange market. The design features of the system include: the rules of intervention, the limits placed on exchange rates and the "crisis scenario" which describes possible transitions to new regimes in case one Central bank runs out of reserves or borrowing capacity. This paper considers the various trade-offs one faces in designing an exchange rate system. Svensson (1989) has already analyzed the degree of variability in the exchange rate, the interest rate and the fundamentals. But the trade-off also pertains to the amount of reserves which the Central banks must have on hand in order to forestall a speculative attack and make the system sustainable. The amount of reserves needed depends crucially on the assumed crisis scenario.

Dutta, Prajit K.

PD November 1990. **TI** (s,S) Equilibria in Stochastic Games with an Application to Product Innovations. **AU** Dutta, Prajit K.; Rustichini, Azod. **AA** Dutta: Columbia University. Rustichini: Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 916; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** not available. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C73, O31. **KW** Stochastic Games. Product Innovation. Perfect Equilibrium.

AB We study a class of two-player continuous time stochastic games in which agents can make (costly) discrete or discontinuous changes in the variables that affect their payoffs. It is shown that in these games there are Markov perfect equilibria of the two-sided (s,S) rule type. In such equilibria at a critical low state (resp. high state) player 1 (resp. 2) effects a discrete change in the environment. In some of these equilibria either or both players may be passive. On account of the presence of fixed costs (to discrete changes) the payoffs are non-convex and hence standard existence arguments fail. We prove that the best response map satisfies a surprisingly strong monotonicity condition and use this to establish the existence of Markov perfect equilibria. We mention various applications of the theory and discuss in detail an application to product innovations.

Eaton, Jonathan

PD July 1990. **TI** Sanctions. **AU** Eaton, Jonathan; Engers, Maxim. **AA** University of Virginia. **SR** National Bureau of Economic Research Working Paper: 3399; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 45. **PR** \$2.00. **JE** F02, F01. **KW** Sanctions. Threats.

AB Sanctions are measures that one party (the sender) takes to influence the action of another (the target). Sanctions, or the threat of sanctions, have been used, for example, by creditors to get a foreign sovereign to repay debt, or by one government to influence the human rights, trade, or foreign policies of another

government. Sanctions can harm the sender as well as the target. The credibility of such sanctions is thus at issue. We examine, in a game-theoretic framework, whether sanctions that harm both parties enable the sender to extract concessions. We find that they can, and that their threat alone can suffice when they are contingent on the target's subsequent behavior.

PD August 1990. **TI** Sovereign Debt, Reputation and Credit Terms. **AA** University of Virginia. **SR** National Bureau of Economic Research Working Paper: 3424; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$2.00. **JE** 443, 433. **KW** Sovereign Debt. Public Debt. Debt Default.

AB I develop a model in which sovereign debtors repay debt in order to maintain a reputation for repayment. Repayment gives creditors reason to think that the debtor will suffer adverse consequences if it defaults, so they continue to lend. I compare a situation in which competitive lenders earn a zero profit on each loan with one in which they can make long-term commitments to individual borrowers, so that the zero profit condition applies only in the long run. In many circumstances a borrower benefits, ex-ante, if lenders commit to denying credit to a borrower in default even if at that point a subsequent loan is profitable. Furthermore, a "debt overhang," while possibly altering credit terms, does not cause profitable investment opportunities to go unexploited.

Eckstein, Zvi

TI Competitive Banking with Fractional Reserves and Regulations. **AU** Bental, Benjamin; Eckstein, Zvi; Peled, Dan.

Edwards, Sebastian

TI Seigniorage and Political Instability. **AU** Cukierman, Alex; Edwards, Sebastian; Tabellini, Guido.

Eichenbaum, Martin

PD September 1990. **TI** Real Business Theory: Wisdom or Whimsy? **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper: 3432; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$2.00. **JE** 133, 131, 226, 023. **KW** Productivity. Business Cycle. Economic Fluctuations.

AB This paper assesses the empirical plausibility of the view that aggregate productivity shocks account for most of the variability in post World War II U.S. output. We argue that the type of evidence forwarded by proponents of this proposition is too fragile to be believable. First, our confidence in the evidence is fundamentally affected once we abandon the fiction that we actually know the true values of the structural parameters of standard Real Business Cycle models. Second, we show that point estimates of the importance of technology shocks are extremely sensitive to small perturbations in the theory.

Eichengreen, Barry

PD June 1990. **TI** Before the Accord: U.S. Monetary-Financial Policy 1945-1951. **AU** Eichengreen, Barry; Garber, Peter. **AA** Eichengreen: University of California, Berkeley. Garber: Brown University. **SR** National Bureau of Economic Research Working Paper: 3380; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge,

MA 02138. **PG** 36. **PR** \$2.00. **JE** 311, 312. **KW** Monetary Policy. Financial Policy. Banking. Commercial Banks.

AB This paper analyzes U.S. monetary-financial policy in the period leading up to the Treasury-Fed Accord. We model policy as an implicit target zone for the price level and an explicit zone for interest rates, and the difficulties on the eve of the Accord as an incipient run on a collapsing target zone regime. The regime was implemented to maintain the stability of the financial system in a period when there was a serious maturity mismatch between the assets and liabilities of the banking system.

PD June 1990. **TI** The Impact of Permanent and Temporary Import Surcharges on the U.S. Trade Deficit. **AU** Eichengreen, Barry; Goulder, Lawrence H. **AA** Eichengreen: University of California, Berkeley. Goulder: Stanford University. **SR** National Bureau of Economic Research Working Paper: 3391; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 37. **PR** \$2.00. **JE** F13, F32, F11, F17. **KW** Imports. Commercial Policy. Trade Balance. Trade Theory. Current Account.

AB This paper uses analytical and simulation models to study the impact of temporary and permanent import surcharges on the U.S. balance of trade. The analytical model of a two-country, two-commodity, two-period endowment economy brings out the intersectoral and intertemporal substitution effects generated by import surcharges. This model shows that the trade balance impact of these initiatives is ambiguous in sign even under restrictive assumptions. We therefore apply a simulation model to gauge the effects under realistic values for parameters. The simulation model differs from others that have analyzed import surcharges in combining sectoral disaggregation with an integrated treatment of current and capital account transactions. The combination is made possible by the model's attention to both intra- and intertemporal aspects of household and producer decisions.

Engers, Maxim

TI Sanctions. **AU** Eaton, Jonathan; Engers, Maxim.

Englander, A. Steven

PD December 1989. **TI** Inflation Expectations Surveys as Predictors of Inflation and Behavior in Financial and Labor Markets. **AU** Englander, A. Steven; Stone, Gary. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8918; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 28. **PR** no charge. **JE** E31, E37, D84. **KW** Inflation. Surveys. Expectations. Rational Expectations.

AB Inflation expectations underlie many important economic decisions. This paper analyzes three surveys of inflation expectations (Decision-Makers Poll, Blue Chip Consensus, Michigan Survey) which sample different participants in the economy. We find that the survey expectations are forward-looking, but they do not appear to be rational in the sense used by economists. Our analysis also suggests that financial market participants and households at times hold, and act upon, significantly different inflation expectations. These differing expectations may contribute to unforeseen contractionary or expansionary impulses to the economy. We conclude that although inflation expectations surveys at times can be poor

indicators of future inflation trends, they are generally reliable indicators of the underlying beliefs of respondents.

Engle, Robert F.

PD May 1990. **TI** Valuation of Variance Forecasts with Simulated Option Markets. **AU** Engle, Robert F.; Hong, Che-Hsiung; Kane, Alex. **AA** Engle and Kane: University of California, San Diego. Hong: Citibank. **SR** National Bureau of Economic Research Working Paper: 3350; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** \$2.00. **JE** C63, C13, G12, C15. **KW** Asset Returns. Algorithms. Forecasting. GARCH.

AB An appropriate metric for the success of an algorithm to forecast the variance of the rate of return on a capital asset would be the incremental profit from substituting it for the next best alternative. We propose a framework to assess incremental profits for competing algorithms to forecast the variance of a prespecified asset. The test is based on the return history of the asset in question. A hypothetical insurance market is set up, where competing forecasting algorithms are used. One algorithm is used by each hypothetical agent in an "ex post ante" forecasting exercise, using the available history of the asset returns. The profit differentials across agents (in various groupings) reflect incremental values of the forecasting algorithms. The technique is demonstrated with the NYSE portfolio, over the period of July 22, 1966 to December 31, 1985. For the limited set of alternative specifications, we find that GARCH (1,1) yields better profits than the three competing specifications.

PD November 1990. **TI** Testing Super Exogeneity and Invariance in Regression Models. **AU** Engle, Robert F.; Hendry, David F. **AA** Engle: University of California, San Diego. Hendry: Nuffield College, Oxford and University of California, San Diego. **SR** Oxford Applied Economics Discussion Paper: 100; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 30. **PR** not available. **JE** C12, C22, C52. **KW** Exogeneity. Invariance. Hypothesis Testing.

AB This paper introduces tests of super exogeneity and invariance. Under the null hypothesis, the conditional model exhibits parameter constancy while under the alternative, shifts in the independent variables' process induce shifts in the conditional model. The test is sensitive to particular types of parameter non-constancy, especially with changing variances and covariances. We relate the test to rational expectations models and the Lucas critique. An empirical example of money demand has prices and interest rates super exogenous in a conditional model but when the inflation specification changes, super exogeneity fails although standard specifications do not.

Ermisch, John F.

PD December 1989. **TI** Entry to Lone Parenthood: Analysis of Marital Dissolution. **AU** Ermisch, John F.; Wright, Robert E. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 9/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 28. **PR** not available. **JE** 921, 911, 841. **KW** Parenthood. Welfare Benefits. Single Parents. Divorce. Families.

AB The number of one parent families in Britain has risen by about 80 per cent since 1971, reaching just over a million in 1986. The primary reason for this large increase is marital

dissolution. This paper examines the socioeconomic determinants of marital dissolution among women with dependent children. Proportional hazard models are estimated using event history data collected in the 1980 Women and Employment Survey. There is no evidence that higher welfare benefits encourage marital dissolution.

PD January 1990. **TI** Women's Wages in Great Britain. **AU** Ermisch, John F.; Joshi, Heather E.; Wright, Robert E. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 8/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 23. **PR** not available. **JE** 824, 917, 851. **KW** Human Capital. Wage Differentials. Discrimination. Employment. Hours. Labor Force.

AB A significant proportion of the female labor force in Britain works part-time. They are significantly less well paid than women in full-time jobs, who, in turn are paid less than men. This paper discusses reasons why there may be differential returns to male and female human capital and to female human capital in full and part-time jobs. It presents empirical analyses of hourly earnings taken from the Women and Employment Survey. Results are similar to those for 32 year olds in the 1946 Birth Cohort. The premium for being male (close to 20% of women's pay) exceeds that for women working full-time (14%). The first is taken to represent gender discrimination, the second, a price of domestic constraints. Ultimately, both factors reinforce one another.

TI Male-Female Wage Differentials in Great Britain. **AU** Wright, Robert E.; Ermisch, John F.

PD September 1990. **TI** Lone Parenthood and Employment in Great Britain: Male-Female Differences. **AU** Ermisch, John F.; Wright, Robert E. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 9/89; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 20. **PR** not available. **JE** 826, 911, 914, 824. **KW** Parenthood. Employment. Welfare Benefits. Labor Supply.

AB In Great Britain, the 100 per cent marginal tax rate in the Supplementary Benefit (SB) system implies that higher SB benefits would discourage employment while higher family income other than earnings or SB would encourage it. This paper measures the size of these effects using a large sample of lone parents who are household heads from ten years of the General Household Survey (1973-1982). We find that welfare benefits and other family income have the predicted effects on the employment rate of female lone parents, but have no significant effect on that of male lone parents.

Evans, Martin D. D.

PD September 1990. **TI** Do Risk Premia Explain It All? Evidence from the Term Structure. **AU** Evans, Martin D. D.; Lewis, Karen K. **AA** Evans: University of Michigan. Lewis: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 3451; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$2.00. **JE** 313. **KW** Term Structure. Risk Premium. Asset Prices. Capital Market.

AB Most studies of the expectations theory of the term structure reject the model. However, the significance of the rejections depend strongly upon the form of the test. In this paper, we use the pattern of rejection across maturities to back

out the implied behavior of time varying risk premia and/or market forecasts. We then use a new technique to test whether stationary risk premia alone can be responsible for these rejections. Surprisingly, this test is rejected for short maturities up to 6 months, suggesting that time varying risk premia do not explain it all. We also describe how this method can be used to test other asset pricing relationships.

Evans, Merran A.

PD December 1990. **TI** Testing the Linear Regression Model using Burr Critical Value and p-Value Approximations. **AU** Evans, Merran A.; Fry, Timothy R. L. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 20/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 23. **PR** no charge. **JE** 211. **KW** Burr Distributions. Autocorrelation. Critical Values. Hypothesis Testing. Heteroskedasticity. Linear Regression Model.

AB The accuracy of Burr approximations of critical values and p-values is evaluated for the usual tests of the general linear regression model. These include tests for coefficients and autocorrelation and heteroskedasticity, based both on standard distributions and those for which the distribution is unknown. The results suggest that the Burr approximations are reasonably accurate and should prove useful both in applied research and in teaching.

Faff, Robert W.

PD September 1990. **TI** Time Stationarity of Systematic Risk: Some Australian Evidence. **AU** Faff, Robert W.; Lee, John H. H.; Fry, Timothy R. L. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 14/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 35. **PR** no charge. **JE** 313, 521, 522, 212. **KW** Risk. Assets. Equity Market. Business Finance.

AB While the evidence on time-varying systematic risk of U.S. assets is well documented in the literature, little work has been conducted in the Australian equity market. This paper intends to fill this gap in the literature by employing an alternative testing procedure to those used in previous studies. Moreover, a new methodology of determining the p-value of a test statistic is applied. The results of our study suggest that there is evidence of time-varying systematic risk for both individual assets and portfolios in Australia.

Farber, Henry S.

TI Product Market Competition, Union Organizing Activity, and Employer Resistance. **AU** Abowd, John M.; Farber, Henry S.

TI An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew.

PD September 1990. **TI** Medical Malpractice: An Empirical Examination of the Litigation Process. **AU** Farber, Henry S.; White, Michelle J. **AA** Farber: Massachusetts Institute of Technology. White: University of Michigan. **SR** National Bureau of Economic Research Working Paper: 3428; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 35. **PR** \$2.00. **JE** 916, 913. **KW** Medicine. Malpractice. Negligence. Liability. Legal System. Medical Care.

AB New data on medical malpractice claims against a single hospital where a direct measure of the quality of medical care is available are used to address 1) the specific question of the role of the negligence rule in the dispute settlement process in medical malpractice, and 2) the general question of how the process of negotiation and dispute resolution in medical malpractice operates with regard to both the behavior of the parties and the outcome of the process. We find that the quality of medical care is an extremely important determinant of defendants' medical malpractice liability.

TI An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew.

Favero, Carlo

PD November 1990. **TI** Testing the Lucas Critique: A Review. **AU** Favero, Carlo; Hendry, David F. **AA** Favero: Queen Mary College, London. Hendry: Nuffield College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 101; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 36. **PR** not available. **JE** C12, C52, C22. **KW** Lucas Critique. Invariance. Econometric Model. Hypothesis Testing.

AB Parameter invariance in an econometric model to changes in policy rules or to alterations in expectations processes is susceptible to super exogeneity and encompassing tests. Invariance claims are refutable in every case, but because two conditions are involved, the Lucas critique is refutable in the case. We review the methodological background; the applicability of the Lucas critique; super exogeneity tests; the encompassing implications for feedback and feedforward models; and the role of incomplete information. The techniques are applied to U.K. consumers' expenditure, examining co-integration, constancy, exogeneity, and encompassing, and revealing the Lucas critique to be inapplicable.

Feenstra, Robert C.

PD December 1990. **TI** New Goods and Index Numbers: U.S. Import Prices. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 371; Department of Economics, University of California at Davis, Davis, California 95616-8578. **PG** 40. **PR** no charge. **JE** C43, F32, C82. **KW** Index Numbers. Price Index. Prices. Product Innovation. Imports.

AB Researchers constructing index numbers frequently face the problem of new (or disappearing) goods, for which the price and quantity are not available in some periods. In theory, the correct way to handle a new good is to treat its price before it appears as equal to the reservation price (i.e., where demand is zero); in practice, this method can be difficult to implement. However, if the underlying aggregator function is CES then the reservation price is infinity, and we show that the corresponding price index takes on a very sensible form. We apply this formula to measure the price index for six disaggregate U.S. imports, which have been supplied from many new countries over the past several decades. We find that by incorporating the new supplying countries, the price index for developing countries is significantly lower than would otherwise be measured.

Feinstein, Jonathan S.

PD March 1990. **TI** The Econometric Implications of Incentive-Compatible Regulation. **AU** Feinstein, Jonathan S.; Wolak, Frank A. **AA** Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-9; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 34. **PR** not available. **JE** L32, L51, C51. **KW** Regulation. Asymmetric Information. Public Utility.

AB This paper considers the empirical implications of the public utility regulator's problem when it has less knowledge of the utility's production process than does the utility. We consider two models of regulator behavior in this asymmetric information environment. The first is the optimal incentive-compatible regulator outcome, which induces truth-telling on the part of the utility, but has the cost that the more efficient utilities must be compensated with positive profits for truthful revelation. The second model assumes a naive regulator that believes all information received from the utility, and optimally sets prices assuming the utility is truthfully reporting. In this context, the utility can game the regulatory process and earn positive profits, that are increasing in its unobserved level of efficiency.

Ferber, Marianne A.

TI Women's Work, Women's Lives: A Comparative Economic Perspective. **AU** Blau, Francine D.; Ferber, Marianne A.

TI Career Plans and Expectations of Young Women and Men: The Earnings Gap and Labor Force Participation. **AU** Blau, Francine D.; Ferber, Marianne A.

Field, Ray A.

TI Using Laboratory Experimental Auctions in Marketing Research: A Case Study of New Packaging for Fresh Beef. **AU** Hoffman, Elizabeth; Menkhaus, Dale J.; Field, Ray A.; Whipple, Glen D.

Fons, Jerome S.

PD August 1989. **TI** The High-Yield Market Structure and the Impact of Security Supplies. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8914; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 21. **PR** no charge. **JE** L11. **KW** Market Structure. **AB** No abstract.

Forges, Francoise

PD April 1990. **TI** Trading Games with Asymmetric Information. **AA** CORE. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 880; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 35. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** 026, 213. **KW** Communication Equilibrium. Incentive Compatibility. Rationality. Trading. Asymmetric Information. Contracts.

AB Two approaches to trading with asymmetric information are compared. The first one, which can be referred to as institutional, consists of delegating to a planner the organization of the transactions. The solutions are associated with (interim) individually rational, incentive compatible

trading rules. The other approach is appropriate in a decentralized context. A game of contracts is modeled and solved by the communication equilibrium solution concept. Solutions in this sense are shown to correspond to strongly incentive compatible trading rules, which are in particular ex post individually rational. Further elements of comparison are provided.

Fortin, Bernard

PD June 1990. **TI** An Empirical Model of Labor Supply in the Underground Economy. **AU** Fortin, Bernard; Lemieux, Thomas; Frechette, Pierre. **AA** Fortin and Frechette: Universite Laval, Canada. Lemieux: Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 3392; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 29. **PR** \$2.00. **JE** 824, 821, 323. **KW** Labor Supply. Taxes. Transfers. Wages.

AB This paper uses micro data from a random survey carried out in the region of Quebec City, Canada, to estimate a model of labor supply in the underground economy. The model assumes that the individual's gross wage rate in the regular sector is parametric while his gross labor earnings in the underground sector are a concave function of hours of work. This distinction between the two sectors is used to generate a simple separation result between preferences and the magnitude of underground labor market activities. This result implies that the individual's labor supply in the underground economy is generally a negative function of his net wage rate in the regular sector. According to our results, the marginal tax rates embodied in the Quebec tax-transfer system are an important determinant of the decision to participate in the underground sector.

Frechette, Pierre

TI An Empirical Model of Labor Supply in the Underground Economy. **AU** Fortin, Bernard; Lemieux, Thomas; Frechette, Pierre.

Frederick, Kenneth D.

PD December 1989. **TI** The Nation's Water Resources: Past Trends and Current Challenges. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-02; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 123. **PR** \$5.00 prepaid (U.S. funds only). **JE** 721, 722. **KW** Water Resources. Water Management. Natural Resources. Public Policy.

AB Extraordinary demographic, economic, and technological growth over the past two centuries has brought major changes in the nation's water resources. This paper begins with a description of the natural availability of water resources within the United States and the nature of the demands placed upon them. These natural supplies approximate the water situation about 1800 before the resources were subjected to intensive use and management. The account of subsequent changes in the use, management, and availability of water is divided into six periods selected to highlight important events and shifts in public water resource policies. The current uses and status of the resource as well as the policies and management practices needed to ensure the availability of supplies to meet growing future demands are also examined.

Freeman, A. Myrick, III

TI Valuing Environmental Health Effects. **AU** Cropper, Maureen L.; Freeman, A. Myrick, III.

Freeman, Richard B.

TI Going Different Ways: Unionism in the U.S. and Other Advanced OECD Countries. **AU** Blanchflower, David G.; Freeman, Richard B.

TI Job-Finding and Wages when Long-Run Unemployment is Really Long: The Case of Spain. **AU** Alba-Ramirez, Alfonso; Freeman, Richard B.

PD September 1990. **TI** Employment and Earnings of Disadvantaged Young Men in a Labor Shortage Economy. **AA** Russell Sage Foundation. **SR** National Bureau of Economic Research Working Paper: 3444; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 30. **PR** \$2.00. **JE** 824, 826. **KW** Unemployment. Labor Markets. Labor Demand. Earnings. Skilled Labor.

AB This study contrasts the economic position of youths across local labor markets that differ in their rates of unemployment using the annual merged files of the current population survey and National Longitudinal Survey of Youth. The paper finds: (1) Local labor market shortages raise the employment-population rate and reduce the unemployment rate of disadvantaged youths by substantial amounts. (2) Shortages also raise the hourly earnings of disadvantaged youths. In the 1980s the earnings gains for youths in tight labor markets offset the deterioration in the real and relative earnings of the less skilled that marked this decade. (3) Youths in labor shortage areas had greater increases in earnings as they aged than youths in other areas, implying that improved labor market conditions raise the longitudinal earnings profiles as well as the starting prospects of youths.

Friedlaender, Ann F.

TI Interdependent Pricing and Markup Behavior: An Empirical Analysis of GM, Ford and Chrysler. **AU** Berndt, Ernst R.; Friedlaender, Ann F.; Wang Chiang, Judy Shaw-Er.

Friedman, Milton

PD February 1991. **TI** The Island of Stone Money. **AA** Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-91-3; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 7. **PR** not available. **JE** 048, 311. **KW** Money. Medium of Exchange. Gold. **AB** No abstract available.

Frowen, Stephen F.

PD May 1990. **TI** The Demand for Money in the U.S., U.K., Japan and West Germany: An Empirical Study of the Evidence since 1973. **AU** Frowen, Stephen F.; Buscher, Herbert. **AA** Frowen: University College London. Buscher: Free University of Berlin. **SR** University College London Discussion Paper: 90-05; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 64. **PR** 2.00 pounds. **JE** E41, E47. **KW** Money Demand. Forecasting.

AB The paper takes a fundamental look at what has been happening to the demand for money in the U.S., U.K., Japan and West Germany since 1973 and presents OLS estimates for

the conventional money demand specification for several sample periods; it then discusses static and dynamic forecasts for the period 1986I to 1987IV for selected money demand equations. The authors further pursue a different approach to money demand modeling. Based on the concept of co-integration and error-correction modeling, they analyze whether the demand for money equations show a tendency to converge to a long-run, desired value and, given this is true, how to model short-run dynamics. The paper finally presents some suggestions as to what could be the relevant factors in modeling money demand in the future.

Fry, Timothy R. L.

TI An Analysis of the Effect of an Offender's Employment Status on the Type of Sentence Chosen by the Magistrate. **AU** Crichton, Nicola J.; Fry, Timothy R. L.

TI Time Stationarity of Systematic Risk: Some Australian Evidence. **AU** Faff, Robert W.; Lee, John H. H.; Fry, Timothy R. L.

TI Testing the Linear Regression Model using Burr Critical Value and p-Value Approximations. **AU** Evans, Merran A.; Fry, Timothy R. L.

Frydman, Roman

PD September 1990. **TI** Markets and Institutions in Large Scale Privatizations: An Approach to Economic and Social Transformations in Eastern Europe. **AU** Frydman, Roman; Rapaczynski, Andrzej. **AA** Frydman: New York University. Rapaczynski: Columbia University. **SR** New York University Economic Research Reports: 90-42; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 65. **PR** no charge. **JE** P26, P21, P27. **KW** Privatization. Europe. Poland.

AB This paper is designed to provide a systematic approach to the problem of privatization in the context of Eastern European economies. The approach presented here will be "systematic" in the sense of providing a theory of what privatization is supposed to accomplish in Eastern Europe and supplying the means of evaluating the relative advantages and disadvantages of each privatization strategy. While the case of Poland will serve as the focal point of our discussions, the analysis presented here is intended to have more general significance, applicable to the region as a whole.

Fullerton, Don

PD June 1990. **TI** Tax Policy Toward Art Museums. **AA** University of Virginia. **SR** National Bureau of Economic Research Working Paper: 3379; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 40. **PR** \$2.00. **JE** 323, 636. **KW** Donations. Tax Policy. Museums. Charity. Nonprofit Industries.

AB Although art museums do not pay any substantial taxes, they are greatly affected by various U.S. tax rules. The individual receives a deduction for donations of art to museums, the estate gets a deduction for bequests, and the corporation gets a deduction for charitable gifts. Art museums also are not taxed on investment income or on some "related" business activities. This paper reviews the logic for these rules and discusses their economic effects.

Fung, Ka-yiu Michael

PD September 1990. **TI** Dynamic Increasing Returns, Technology and Economic Growth in a Small Open Economy. **AU** Fung, Ka-yiu Michael; Ishikawa, Jota. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9013; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 31. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** F41, O41, O33, O32. **KW** Economic Growth. Scale Economies. R&D. Open Economy.

AB A two-final-good and knowledge-based growth model is constructed to study growth patterns in a small open economy. The source of growth is the introduction of new intermediate goods as a result of R&D, which in turn generates dynamic increasing returns in both the production of one final good and R&D. The results obtained in the model are consistent with intercountry differences in growth patterns. Depending on the technology level, a zero growth equilibrium appears. However, there exist some temporary policies that can help the economy take off. If the economy grows, the growth rate increases. Moreover, the share of the labor force employed by the constant-returns final-good sector decreases in the process of growth.

Garber, Peter

TI Before the Accord: U.S. Monetary-Financial Policy 1945-1951. **AU** Eichengreen, Barry; Garber, Peter.

PD June 1990. **TI** Banks in the Market for Liquidity. **AU** Garber, Peter; Weisbrod, Steven. **AA** Garber: Brown University. Weisbrod: Weisbrod Group Ltd. **SR** National Bureau of Economic Research Working Paper: 3381; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 42. **PR** \$2.00. **JE** G21. **KW** Commercial Banks. Liquidity. Bank Reserves.

AB Banks are unique among financial institutions because they are the cheapest source of liquidity in the economy. Banks choose to hold reserves to facilitate settlement of end-of-day net due to positions arising from payments operations. Money market substitutes for bank liabilities do not escape from the cost of reserves since their issuers lean on banks to provide liquidity. Since the cost of reserves falls on all issuers of less liquid liabilities seeking access to payment services, including non-bank intermediaries, reserves cannot represent a tax on the banking system alone.

Garcia, Rene

TI Mean Reversion in Equilibrium Asset Prices: Comment. **AU** Bonomo, Marco; Garcia, Rene.

Gardner, B. Delworth

PD January 1990. **TI** Rangelands. **AA** Brigham Young University. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-04; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 113. **PR** \$5.00 prepaid (U.S. funds only). **JE** 717, 713, 721. **KW** Rangeland. Public Lands. Land Management. Natural Resources. Environment.

AB This paper examines changes in the acreage and health of U.S. rangeland resources through time and attempts to explain and evaluate these changes. These resources are of tremendous

value to the nation, but too little is known about their quality despite conceptual advances in identifying the ecological health of the range. Collecting and evaluating the necessary data on ecological status will be a large and costly task. In the meantime, large gaps are likely to persist between environmentalists and ranchers versus private ranchers and recreationists in judging range condition. The resulting disputes will require continued attention from the courts.

Gawn, Glynis

PD July 1989. **TI** A Model of Nutrient Demand and the Allocation of Time. **AU** Gawn, Glynis; Rausser, Gordon C.; Zilberman, David. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 511; 207 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 20. **PR** \$5.00. **JE** I31, D12, J22, O56. **KW** Food Consumption. Nutrition. Consumer Demand. Time Allocation. Guam. Developing Countries.

AB The frameworks developed by Becker and Lancaster dramatically extended the analysis that could be conducted by economists to include the allocation of nonmarket goods and the management of nonmarket activities. While Lancaster's approach focuses on choices of intrinsic characteristics of market products, Becker emphasizes the allocation of time among activities. The union of their frameworks significantly enlarges the scope of behavior which is amenable to economic analysis. Using primary survey data collected from Guam, this paper analyzes nutrient consumption, food expenditure, and the allocation of time among labor, leisure, and food preparation activities. Because Guam is going through a process of transition from a traditional to a modern society and it consists of many ethnic groups, special attention was given to the impacts of ethnicity, life style, and family composition on nutritional choices and time allocation.

Gaynor, Martin

PD June 1990. **TI** Moral Hazard in Partnerships. **AU** Gaynor, Martin; Gertler, Paul J. **AA** Gaynor: Johns Hopkins University. Gertler: The RAND Corporation. **SR** National Bureau of Economic Research Working Paper: 3373; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$2.00. **JE** D21, D23, I11, L21. **KW** Partnerships, Principal-Agent Model. Incentives. Moral Hazard. Risk.

AB In this paper, we investigate incentive structures within partnerships. Partnerships provide a classic example of the trade-off between risk spreading and moral hazard. We consider a two-stage model in which agents choose effort in response to incentives and in which the firm can choose two different instruments to affect incentives and to spread risk: the compensation method and the number of members. There are two new theoretical results. First, relative to the compensation method or group size which would be chosen in the absence of risk or risk aversion, the best compensation method will be one which sacrifices efficiency incentives in order to spread risk, and the best membership size will exceed the first best size for the same reasons. Second, a further increase in risk or risk aversion leads the firm to sacrifice more efficiency incentives in order to spread more risk.

PD September 1990. **TI** Measuring Ignorance in the Market: A New Method with an Application to Physician

Services. **AU** Gaynor, Martin; Polachek, Solomon. **AA** Gaynor: Johns Hopkins University. Polachek: State University of New York at Binghamton. **SR** National Bureau of Economic Research Working Paper: 3430; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 28. **PR** \$2.00. **JE** 913, 227. **KW** Prices. Medical Care. Medical Services. Search Theory.

AB Ever since Stigler's seminal piece on the economics of information, a great deal of research has been done investigating equilibrium in markets with imperfect information. While most of this research has been concerned with theoretically establishing the conditions under which there exists a distribution of prices in equilibrium, there is a small, but growing, body of empirical research in this area. In this paper we propose a method for measuring ignorance about price in a market which builds on Stigler's original suggestion to use dispersion as a measure of ignorance. The innovation is to use a new frontier estimation technique containing a three component error term to separate observed price dispersion into purely random variation, variation due to buyer ignorance, and variation due to seller ignorance. We apply the technique to the physicians' service market.

PD November 1990. **TI** Internal Non-Price Competition and Optimal Compensation in Partnerships. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Political Economy Working Paper: 261; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 23. **PR** no charge. **JE** D21, L15, L84. **KW** Partnerships. Incentives. Pricing. Competition. Product Quality.

AB The motivating factor for many of studies of the form of incentives within an organization is the observation that real world incentive systems are not generally based purely (or even largely) on productivity. An alternative explanation is that compensation based on individual productivity is not optimal in the presence of competition within the firm. Competition within the firm can emerge if members of the firm produce a heterogeneous product independently, but share fixed costs and set price collectively. If demand is allocated among members of the firm via product quality, then non price competition among the members is the result. This paper examines the nature of pricing and incentive systems adopted in such a context. The model explains why a firm might optimally adopt an "inefficient" compensation method which includes some sharing, as is commonly observed in these service firms. Observations from medical and legal partnerships bear some empirical support for these hypotheses.

Gazioglu, Shaziye

PD November 1989. **TI** The Influence of Education in the Labor Market: Turkish Speaking Immigrants in London Boroughs. **AA** Birkbeck College and University of Stirling. **SR** Birkbeck College Discussion Papers in Economics: 3/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 25. **PR** not available. **JE** 823, 812, 851, 813. **KW** Immigration. Labor Force. Labor Mobility. Ethnic Groups.

AB The aim of this paper is two-fold. One is to investigate the occupational achievements of the first generation Turkish ethnic groups in the British society. This investigation shows that though they have to accept lower levels of occupation than their country of origin, they have improved their position

during their stay in the U.K. Therefore, there is a J shape occupational movement over time for the first generation. In contrast with their fathers, the Turkish youth also shows a general improvement in relation to their fathers. This confirms intergenerational occupational mobility. Secondly, we have investigated influences of educational achievement to their job mobilities.

Gertler, Mark

PD October 1990. **TI** Interest Rate Spreads, Credit Constraints, and Investment Fluctuations: An Empirical Investigation. **AU** Gertler, Mark; Hubbard, R. Glenn; Kashyap, Anil K. **AA** Gertler: New York University. Hubbard: Columbia University. Kashyap: Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 137; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 42. **PR** no charge. **JE** 313, 511, 522. **KW** Capital Market. Business Investment. Interest Rates. Decision Theory.

AB We present a simple framework that incorporates a role for "interest rate spreads" in models of investment fluctuations. Formally, we develop a simple model of investment and financial contracting under asymmetric information that can be used to generate an Euler equation describing firms' intertemporal decisions about investment. The Euler equation is then estimated using data on U.S. producers durable equipment. We find that during certain periods, because of agency problems, the basic Euler equation is violated and shifts in interest rate differentials help predict investment. Thus the empirical results lend support to models emphasizing (i) how movements in agency costs of external finance can amplify investment fluctuations and, (ii) how changes in the interest rate spread may signal movements in these agency costs.

PD October 1990. **TI** Financial Capacity and Output Fluctuations in an Economy with Multiperiod Financial Relationships. **AA** New York University. **SR** New York University Economic Research Reports: 90-44; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 34. **PR** no charge. **JE** E32, E44, E23, E22. **KW** Asymmetric Information. Contracts. Business Fluctuations. Financial Markets. Production. Debt.

AB This paper motivates a financial propagation mechanism in the context of an intertemporal production economy with asymmetric information where borrowers and lenders enter multiperiod financial relationships. A key feature is that aggregate output and borrowers' "financial capacity" - the maximum overhang of past debt they may feasibly carry - are determined jointly much in the spirit of Gurley and Shaw (1955). Expectations of future economic conditions govern financial capacity which in turn may constrain current production, especially in bad times. A small but persistent shift in aggregate conditions may have a large impact on financial capacity, making the framework capable of motivating large endogenous fluctuations in financial constraints.

Gertler, Paul J.

TI Moral Hazard in Partnerships. **AU** Gaynor, Martin; Gertler, Paul J.

Ghose, Devajyoti

PD November 1990. **TI** A Test of Weak Separability in

Linear Demand Systems: An Application of Cointegration. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-36; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 24. **PR** no charge. **JE** C12, D12, C31, O53. **KW** Weak Separability. Co-integration. Demand Systems. Consumer Economics.

AB In this paper, a test for weak separability in linear demand systems, such as Deaton and Muellbauer's Almost Ideal Demand System, is proposed, based on the idea of co-integration between time series. It is shown that, if the time series data on prices and expenditures are nonstationary (a fairly plausible assumption about economic data), weak separability of a sub-system of demand equations implies that the prices and expenditures in that sub-system are co-integrated. An application to Japanese import demand equations and Monte Carlo simulations suggest that this test yields reasonable results and often performs better than a more conventional Lagrange Multiplier test of separability.

Giavazzi, Francesco

PD May 1990. **TI** Can Severe Fiscal Contractions be Expansionary? Tales of Two Small European Countries. **AU** Giavazzi, Francesco; Pagano, Marco. **AA** Giavazzi: Universita di Bologna. Pagano: Universita di Napoli. **SR** National Bureau of Economic Research Working Paper: 3372; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$2.00. **JE** E21, H61, E62, E61. **KW** Government Spending. Fiscal Policy. Expectations. Aggregate Demand. Consumption.

AB According to conventional wisdom, a fiscal consolidation is likely to contract real aggregate demand. It has often been argued, however, that this conclusion is misleading as it neglects the role of expectations of future policy: if the fiscal consolidation is read by the private sector as a signal that the share of government spending in GDP is being permanently reduced, households will revise upwards their estimate of their permanent income, and will raise current and planned consumption. Only the empirical evidence can sort out which of these two contending views about fiscal policy is more appropriate -- i.e. how often the contractionary effect of a fiscal consolidation prevails on its expansionary expectational effect. This paper brings new evidence to bear on this issue drawing on the European exercise in fiscal rectitude of the 1980s, and focusing, in particular, on its two most extreme cases -- Denmark and Ireland.

Gill, L.

TI Simple Procedures for Testing Autoregressive versus Moving Average Errors in Regression Models. **AU** McKenzie, C. R.; McAleer, Michael; Gill, L.

Gilligan, Thomas W.

PD March 1990. **TI** Imperfect Competition and Basing-Point Pricing: An Application to the Softwood Plywood Industry. **AA** University of Southern California and Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-6; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 21. **PR** not available. **JE** D43, L73, L13, L11. **KW** Imperfect Competition. Firm Theory. Lumber. Pricing.

AB This article contains a theoretical and empirical investigation of the relationship between imperfect competition and basing-point pricing. It is shown that basing-point pricing can emerge if firms at the base site are Bertrand competitors, firms at non-base locations cooperate with each other and are von Stackleberg leaders with respect to base site production, and the products produced at both the base and non-base locations are perfect substitutes. One implication of the theory is that basing-point pricing does not contribute to the markups of freight charges. The theory's predictions are consistent with the pricing behavior of firms in the U.S. softwood plywood industry during the middle 1970s.

Godfrey, L. G.

TI Modified Rainbow Tests. **AU** Burke, S. P.; Godfrey, L. G.; McAleer, Michael.

Gokey, Timothy C.

PD November 1990. **TI** Stationarity of Nominal Interest Rates, Inflation, and Real Interest Rates. **AA** New College, Oxford. **SR** Oxford Applied Economics Discussion Paper: 105; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 82. **PR** not available. **JE** C43, C22, C10. **KW** Time Aggregation. Unit Roots. Interest Rates.

AB Previous empirical work has almost uniformly found real interest rates to be nonstationary in the sense implied by a unit root, with important implications for finance, macroeconomics, and econometric testing. At the same time, little attention has been paid to the consequences of time aggregation and alternative data sampling methodologies for the power of unit root tests. In this paper, the effect of temporal aggregation on unit root tests is investigated and the power of these tests under alternative data sampling methods is shown to vary considerably. Using unaggregated data, in contrast to previous investigators, we find both inflation and nominal interest rates to be $I(0)$ in eight industrialized nations, implying that real interest rates are also $I(0)$.

Gokhale, Jagadeesh

TI The Provision of Time to the Elderly by their Children. **AU** Boersch-Supan, Axel; Gokhale, Jagadeesh; Kotlikoff, Laurence J.; Morris, John.

Golub, Stephen S.

PD August 1990. **TI** International Diversification of Social and Private Risk: The U.S. and Japan. **AA** Swarthmore College. **SR** Yale Cowles Foundation Discussion Paper: 955; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 32. **PR** no charge. **JE** 441. **KW** Capital Flows. Portfolio Diversification. International Trade. International Markets. Risky Assets.

AB This paper concerns the gains from international trade risky assets, with an application to the United States and Japan. I examine the role of international financial markets in diversifying the risks associated with the aggregate consumption opportunities of a nation (social risk) and the risks related to individual agents' consumption opportunities (private risk). The main empirical result is that international portfolio diversification between the United States and Japan leads to small reductions in social risk but large reductions in some private risks, especially for corporate profits.

Goodman, John L., Jr

PD December 1990. **TI** Adjustable-Rate Mortgages and the Demand for Mortgage Credit. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 112; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 23. **PR** no charge. **JE** R21, G21, D12. **KW** Mortgages. Housing. Housing Demand. Credit. Interest Rates.

AB This paper develops and estimates a model of the demand for home mortgage credit. According to the model, the effects of adjustable-rate mortgages (ARMs) on the level and interest rate elasticity are indeterminate a priori; the effects depend on the covariation of interest rates on fixed- and adjustable-rate mortgages and on the elasticities of demand of the various groups of consumers. The empirical results indicate that the sensitivity of total mortgage demand to changes in interest rates during the 1980s was somewhat less than it would have been in the absence of ARMs; but this innovation in mortgage finance had little effect on the average level of mortgage demand during the decade.

Gordon, Robert J.

PD June 1990. **TI** The Phillips Curve Now and Then. **AA** Northwestern University. **SR** National Bureau of Economic Research Working Paper: 3393; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 18. **PR** \$2.00. **JE** E31, E32, E63. **KW** Inflation. Unemployment. GNP. Fiscal Policy.

AB This paper describes the development of the "triangle" model of inflation, which holds that the rate of inflation depends on inertia, demand, and supply. This model differs from most other versions of the Phillips curve by relating inflation directly to the level and rate of change of detrended real output, and by excluding wages, the unemployment rate, and any mention of "expectations." The model identifies the ultimate source of inflation as nominal GNP growth in excess of potential real output growth and implies that a policy rule that targets excess nominal GNP growth is an essential precondition to avoiding an acceleration of inflation. Any residual instability of inflation then depends on the severity of supply shocks.

Gordon, Roger H.

PD August 1990. **TI** Can Capital Income Taxes Survive in Open Economies? **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 3416; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** 411, 323, 441, 422. **KW** Open Economy. Capital Income. Taxes. Capital Controls.

AB Recent theoretical work has argued that a small open economy should use residence-based but not source-based taxes on capital income. Given the ease with which residents can evade domestic taxes on foreign earnings from capital, however, a residence-based tax may not be administratively feasible, leaving no taxes on capital income. The objective of this paper is to explore possible reasons why capital income taxes have survived in the past, in spite of the above pressures. Any bilateral approach, such as sharing of information among governments or direct coordination of tax rates, suffers from the problem that the coalition of countries is itself a small open

economy, so subject to the same pressures. Capital controls, preventing capital outflows, may well be a sensible policy response and were in fact used by a number of countries.

Goulder, Lawrence H.

TI The Impact of Permanent and Temporary Import Surcharges on the U.S. Trade Deficit. **AU** Eichengreen, Barry; Goulder, Lawrence H.

Granger, C. W. J.

TI Treasury Bill Yield Curves and Co-integration. **AU** Anderson, H. M.; Granger, C. W. J.; Hall, A. D.

Gray, Wayne B.

PD December 1989. **TI** Are OSHA Health Inspections Effective? A Longitudinal Study in the Manufacturing Sector. **AU** Gray, Wayne B.; Jones, Carol Adaire. **AA** Gray: Clark University and National Bureau of Economic Research. Jones: University of Michigan and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-05; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 35. **PR** \$2.25 prepaid (U.S. funds only). **JE** 822, 613, 631. **KW** OSHA. Regulation. Enforcement. Manufacturing.

AB We examine the impact of OSHA health inspections on company compliance with agency regulations in the manufacturing sector, with a unique plant level data set of inspection and compliance behavior during 1972-1983, the first twelve years of the agency operation. Two major findings are robust across the range of linear and count models estimated in the paper: (1) the number of citations and the number of violations of worker exposure limits decrease with additional health inspections in manufacturing plants; and (2) the first health inspection has the strongest impact. The results suggest that prior research focusing on the limited impact of OSHA safety regulations may underestimate OSHA's contribution to reducing workplace risks.

Greenwald, Bruce C.

PD May 1990. **TI** Asymmetric Information and the New Theory of the Firm: Financial Constraints and Risk Behavior. **AU** Greenwald, Bruce C.; Stiglitz, Joseph E. **AA** Greenwald: Bell Communications Research. Stiglitz: Stanford University. **SR** National Bureau of Economic Research Working Paper: 3359; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 14. **PR** \$2.00. **JE** 022, 026. **KW** Imperfect Information. Firm Theory. Utility Function.

AB This paper summarizes recent developments in the theory of the firm that have arisen in examining the implications of imperfect information. It shows that a wide range of these models have similar implications for the likely reaction of firms to external environmental and policy changes. Two significant implications are (1) that firms behave as if they are risk averse individuals maximizing a utility function of terminal wealth (profitability) -- even when the risks involved are unsystematic -- and (2), in many circumstances, because this utility function is likely to be characterized by decreasing absolute risk aversion, firms are likely to respond significantly (and positively) to changes in cash flow and profitability.

Gregory, Allan W.

TI Accounting for Forward Rates in Markets for Foreign Currency. **AU** Backus, David K.; Gregory, Allan W.; Telmer, Chris I.

PD September 1990. **TI** The Term Structure of Interest Rates: Departures from Time-Separable Expected Utility. **AU** Gregory, Allan W.; Voss, Graham M. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 794; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 33. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** G12, E43. **KW** Asset Pricing. Term Structure. Interest Rates. Risk Premium.

AB This paper assesses the ability of general equilibrium models of asset pricing using two recently developed sets of preferences to quantitatively account for the observed variability in the Canadian term structure of interest rates. The preference structures are non-expected utility and habit persistence associated with Epstein and Zin (1989a) and Constantinides (1990) respectively. The framework adopted follows Backus, Gregory and Zin (1989) where a numerical version of the theory is specified and empirical features of the artificial economy are compared against actual data. Neither preference structure is able to satisfactorily mimic the magnitude or the variability of the risk premiums.

Greif, Avner

PD October 1990. **TI** The Merchant Guild as a Nexus of Contracts. **AU** Greif, Avner; Milgrom, Paul; Weingast, Barry R. **AA** Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-23/10; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 23. **PR** not available. **JE** 044, 611, 916. **KW** Contracts. Economic History. Property Rights. Merchants. Europe.

AB In late medieval Europe, cities had to commit themselves to secure alien merchants' property in order to attract long distance commerce. According to our theory, simple bilateral and multilateral reputation mechanisms, without supporting institutions, lacks the attributes necessary to support efficient volumes of trade. We provide historical evidence to support the claim that a specific institution functioning as a nexus of contracts - the merchant fold - did have the required attributes, effectively secured the merchants' property rights in some circumstances, and evolved in response to crises to extend the range of its effectiveness.

Gretsky, Neil E.

PD July 1990. **TI** The Nonatomic Assignment Model. **AU** Gretsky, Neil E.; Ostroy, Joseph M.; Zame, William R. **AA** Gretsky: University of California, Riverside. Ostroy: University of California, Los Angeles. Zame: Johns Hopkins University. **SR** Johns Hopkins Department of Political Economy Working Paper: 256; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 28. **PR** no charge. **JE** D51, D57. **KW** Linear Programming. Exchange Economy.

AB In this paper we extend the Shapley and Shubik "housing market" version of the assignment model to one with a large number of buyers and a large number of sellers (literally a continuum) each having a distinct house. The analysis is divided into three parts, corresponding to the following alternative formulations of the problem: (1) as a linear

programming problem, (2) as a market game, and (3) as an exchange economy.

Grilli, Vittorio

TI Endogenous Exchange Rate Regime Switches. **AU** De Kock, Gabriel; Grilli, Vittorio.

Gritz, R. Mark

PD December 1990. **TI** Unemployment Compensation and Episodes of Nonemployment. **AU** Gritz, R. Mark; MaCurdy, Thomas. **AA** Gritz: University of Washington. MaCurdy: Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-25; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 39. **PR** not available. **JE** 824, 822, 914. **KW** Unemployment Insurance. Duration Models. Labor Market. Unemployment.

AB This paper exploits the Youth Cohort of the National Longitudinal Survey to examine the influence of Unemployment Insurance (UI) on the length of nonemployment spells experienced by young workers. The analysis introduces a flexible duration model to estimate the effects of the weekly benefit amount and weeks of eligibility on the amount of time spent between jobs by both men and women, distinguishing between the experiences of UI and non-UI recipients for each gender. The empirical findings suggest three conclusions: (1) UI recipients experience longer spells of nonemployment than their non-UI recipient counterparts, at least up to the point of exhaustion of UI benefits; (2) the level of the weekly benefit amount does not significantly affect the length of nonemployment spells for either men or women; and (3) increasing the number of weeks of eligibility offered by a UI program leads to longer episodes of nonemployment.

Große, Simone D.

PD November 1990. **TI** The Locally Unbiased Two-Sided Durbin-Watson Test. **AU** Große, Simone D.; King, Maxwell L. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 17/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 10. **PR** no charge. **JE** 211. **KW** Autocorrelation. Linear Regression. Critical Regions. Hypothesis Testing.

AB An algorithm for constructing locally unbiased two-sided critical regions for the Durbin-Watson test is presented. It can also be applied to other two-sided tests. Empirical calculations suggest that, at least for the Durbin-Watson test, the current practice of using equal-tailed critical values yields approximately locally unbiased critical regions.

Grossman, Gene M.

PD November 1990. **TI** Hysteresis in the Trade Pattern. **AU** Grossman, Gene M.; Helpman, Elhanan. **AA** Grossman: Princeton University. Helpman: Tel Aviv University. **SR** Princeton Woodrow Wilson School Discussion Paper in Economics: 157; Woodrow Wilson School, Robertson Hall, Princeton University, Princeton, NJ 08544. **PG** 39. **PR** no charge. **JE** F41, F43, F11, O33. **KW** Innovation. R&D. Technological Progress. Comparative Advantage. Open Economy. Trade Theory.

AB We study a world economy comprising two countries that may differ in their prior experience in the research lab. Entrepreneurs in each country develop new technologies for

varieties of a differentiated product whenever expected profits justify up-front research costs. Research productivity depends upon national stocks of knowledge capital, which accumulate in proportion to local research activity. The countries produce and trade their unique varieties of the differentiated good, as well as a homogeneous, "traditional" product. In this context, we ask whether a country can overcome a late start in research to develop a comparative advantage in the high-technology sector. We also examine the welfare properties of the equilibrium trajectory and of policies that might be used to reverse a country's fate.

Guidotti, Pablo E.

TI Capital Controls, Collection Costs, and Domestic Public Debt. **AU** Aizenman, Joshua; Guidotti, Pablo E.

Gunning, Jan W.

TI Temporary Trade Shocks and Dynamic Adjustment. **AU** Bevan, David L.; Collier, Paul; Gunning, Jan W.

TI Price Controls and the Transition to Market Clearing: Theory and an Application to Tanzania. **AU** Bevan, David L.; Collier, Paul; Gunning, Jan W.

Hahn, Frank H.

PD July 1989. **TI** General Equilibrium in an Imperfect World: Incomplete Markets. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 147; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 24. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** D52, D51, D82. **KW** General Equilibrium. Incomplete Markets. Asymmetric Information.

AB The Arrow-Debreu model can only be regarded as a starting point for an eventual descriptively satisfactory theory. Among the various possible departures from its postulates, the paper explores the route which has in recent years been signposted as "missing markets". After briefly reviewing the results which have been obtained, the limits of this literature are discussed and some ideas are proposed about possible directions forward, especially with regard to the problem of introducing explicit consideration of asymmetries of information and mechanisms of transaction in a general equilibrium framework.

PD May 1990. **TI** Some Remarks on Missing Markets. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 151; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 22. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** G10, D58, D52. **KW** Missing Markets. Transaction Costs. General Equilibrium Model. Securities.

AB This paper studies general equilibrium theory in which the variety of securities traded is endogenous. This is done on the basis of transaction costs. A distinction is drawn between "missing" and "inactive" markets. With zero transaction costs there will only be active and inactive markets. There is an outline of an existence proof for the case of positive linear transaction costs and it is shown that these costs suffice for constrained Pareto inefficiency of equilibrium.

Hall, A. D.

TI Treasury Bill Yield Curves and Co-integration.
AU Anderson, H. M.; Granger, C. W. J.; Hall, A. D.

Hall, Brownyn H.

PD May 1990. **TI** The Manufacturing Sector Master File: 1959-1987. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3366; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 42. **PR** \$2.00. **JE** C81. **KW** Manufacturing. Micro Data. Panel Data.

AB This document describes the panel of publicly traded United States manufacturing firms which was created and updated at the National Bureau of Economic Research from 1978 through 1990 within the Productivity Program. The panel consists of 2726 large manufacturing firms with one to twenty-nine years of data each; the period covered by the sampling frame was 1976 through 1987, with data back to 1959 where possible. There are about 90 variables for each firm-year of data: the variables give the complete income statement, balance-sheet, statement of changes, and data on the market value of the common stock. The firms on the file are identified both by their CUSIP number and by name, making it feasible to match this data to other sources.

Hamermesh, Daniel S.

PD May 1990. **TI** A General Model of Dynamic Labor Demand. **AA** Michigan State University. **SR** National Bureau of Economic Research Working Paper: 3356; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 19. **PR** \$2.00. **JE** 821, 635. **KW** Labor Demand. Adjustment Costs. Airline Industry. Dynamic Model.

AB This study derives and estimates a dynamic model of factor demand that includes both fixed and quadratic variable costs of adjustment. Using quarterly data on the employment of mechanics at seven airlines, it finds that both types of adjustment costs characterize the dynamic constraints facing employers. Using monthly data covering production worker employment in seven manufacturing plants, it shows that only fixed costs are important. The apparent diversity of the underlying costs of adjustment means it is difficult to draw useful inferences from macroeconomic estimates. It suggests the importance of examining broader arrays of microeconomic time series describing labor demand.

Hannan, Timothy H.

PD December 1990. **TI** Inferring Market Power from Time Series Data: The Case of the Banking Firm. **AU** Hannan, Timothy H.; Liang, J. Nellie. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 147; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 22. **PR** no charge. **JE** 611, 313. **KW** Market Power. Industrial Organization. Commercial Banks. Bank Deposits.

AB Due in part to difficulties in interpreting different price cost margins and profitability measures across industries, a substantial body of recent empirical work in the industrial organization field has taken a different approach. Such studies seek to infer market behavior from time series data applying to

one market or industry. In this study, we employ elements of this new approach to test for the existence of market power in banking and to determine if resulting estimates differ across geographic markets and banking products in a manner consistent with known or hypothesized differences. Results are consistent with the exercise of market power in the setting of deposit rates, with greater market power exercised in the case of banks located in more concentrated markets and in the case of deposit categories that tend to be more geographically limited.

Hardouvelis, Gikas A.

PD March 1990. **TI** Stock Market Bubbles before the Crash of 1987? **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9004; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 25. **PR** no charge. **JE** G12, G14. **KW** Stock Market. Japan. United States. Great Britain. Asset Pricing.

AB Was the October 1987 stock market crash the bursting of a bubble? The article provides two interesting pieces of evidence: First, ex-ante stock returns in the United States and particularly in Japan showed an upward trend for a two and a half year period before the crash. A simulation shows that such a trend cannot occur by chance alone with high probability. Second, implied volatility estimates from options on the S&P-500 also showed a small upward trend. A theoretical model suggests that both pieces of evidence are consistent with the hypothesis of rational bubbles. However, rational bubbles can only be part of the story of the crash. The British market showed little evidence of a bubble but it did crash.

Harley, C. Knick

PD September 1990. **TI** The State of the British Industrial Revolution: A Survey of Recent Macroeconomic Reassessment. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9012; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 57. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** N13, O52. **KW** Industrial Revolution. Economic History. Economic Growth. Living Standards.

AB Since the mid nineteenth century, the standard of living in Western Europe and its off shoots has increased steadily. The long lasting rise in living standards indicates a change in the relationship between the human population and the environment way rivaled only by the neolithic adoption of settled agriculture. Modern growth appears to have begun in Britain between 1750 and 1850, when factory industry, the modern industrial city, and an urban industrial proletariat all emerged. New technology in textile and iron production and the development of an efficient steam engine -- called by mid century the Industrial Revolution -- appeared the obvious source of change. Efforts to understand modern economic growth continue to direct interest to the economic history of Britain in the century that centered on 1800.

Harrington, Joseph E., Jr

PD May 1990. **TI** The Role of Party Reputation in the Formation of Policy. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Political Economy Working Paper: 251; Department of Economics, Johns Hopkins

University, Baltimore, Maryland 21218. **PG** 25. **PR** no charge. **JE** D72, D73, D71. **KW** Political Parties. Overlapping Generations Model.

AB This paper explores the role of the political party in policy formation. We show that a party is able to credibly establish a platform more moderate than the ideology of its members and thereby raise the probability that the party's nominee wins the election. A lame duck incumbent finds it optimal to implement his party's platform, rather than his more extreme ideology, in order to maintain his party's reputation for having a moderate platform and thereby increase the chances that his party retains power. While he does not intrinsically care as to whether his party remains in power, the incumbent prefers his successor to be his own party's nominee because it will result in a more preferred policy being implemented. When parties credibly locate themselves in policy space via this mechanism, we show that the parties' policies are bounded away from one another as the value to holding office becomes large relative to the value to implementing one's ideology. In contrast to the preceding literature, our analysis reveals that the policy convergence result is not robust.

PD August 1990. **TI** Review of Ken Binmore's "Essays on the Foundations of Game Theory". **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Political Economy Working Paper: 252; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 20. **PR** no charge. **JE** C70, D83, D82. **KW** Game Theory. Rationality. Common Knowledge.

AB In "Essays on the Foundations of Game Theory," Ken Binmore critically examines the major tenets of game theory which are that the game is common knowledge and the rationality of players is common knowledge. The emphasis of the discussion in both Binmore's book and this review is specifically on the modeling of rational players and the equilibrating process. Starting from the premise that rational behavior must be algorithmic, Binmore argues that perfect rationality is unattainable. In this review, we take issue with this premise in light of J.R. Lucas' argument that Godel's theorem implies that the mind is not algorithmic and the arguments of Roger Penrose in his new book "The Emperor's New Mind."

Harrington, Winston

PD November 1989. **TI** Trends in American Wildlife Resources. **AA** Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-03; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 102. **PR** \$2.25 prepaid (U.S. funds only). **JE** 721. **KW** Wildlife. Renewable Resources.

AB The period between the European discovery of the New World and about 1900 was a very difficult one for American wildlife, with the population and range of many species contracting severely. Since the turn of the century and especially since World War II, however, wildlife has made a remarkable recovery, although there are many exceptions to this general rule. What made the decline so severe in the first epoch? To what factors do we attribute the recovery in the second? What does this experience teach about the current prospects of wildlife resources? These and similar questions are examined in this short historical account of American wildlife resources.

TI Reapportionment Reconsidered. **AU** Marquart, Deanna; Harrington, Winston.

Hartwick, John M.

PD September 1990. **TI** Increasing Pollution with Optimal Corrective Taxes. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 795; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 15. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** H21, D62, D63. **KW** Pollution. Taxes. Pigouvian Taxes. Externalities.

AB In a simple two factor, two good, two person general equilibrium model with pollution, we indicate a case in which the introduction of optimal Pigouvian corrective taxes results in an equilibrium with a higher level of pollution. Our argument turns on our two persons earning incomes from distinct input sources and having different tastes for the two goods, one of which causes pollution. The introduction of taxes causes one person's income to rise relative to the other person's and can induce a shift in total consumption toward the commodity causing pollution.

Hayashi, Fumio

PD August 1990. **TI** Ex-Day Behavior of Japanese Stock Prices: New Insights from New Methodology. **AU** Hayashi, Fumio; Jagannathan, Ravi. **AA** Hayashi: University of Pennsylvania. Jagannathan: University of Minnesota and Federal Reserve Bank of Minneapolis. **SR** National Bureau of Economic Research Working Paper: 3421; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** 313. **KW** Dividends. Stock Prices. Stock Market.

AB We study the ex-dividend day behavior of Japanese stock prices for the period 1983-1987. We find that, contrary to previous findings, prices of ex-day stocks drop by nearly the full amount of the dividend. However, ex-day stocks shows an abnormal return. Also, for the many ex-dividend day stocks that also go ex-rights on the same ex-day, we find that the return is on average higher than that for stocks without rights issues. We thus conclude that the ex-day behavior of Japanese stocks are qualitatively similar to that of U.S. stocks.

Helpman, Elhanan

TI Hysteresis in the Trade Pattern. **AU** Grossman, Gene M.; Helpman, Elhanan.

Hendershott, Patric H.

PD June 1990. **TI** Revenue and Welfare Implications of a Capital Gains Tax Cut when Gains Realizations and Dividend Payouts are Endogenous. **AU** Hendershott, Patric H.; Toder, Eric; Won, Yunhi. **AA** Hendershott and Won: Ohio State University. Toder: The Treasury, New Zealand. **SR** National Bureau of Economic Research Working Paper: 3386; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 46. **PR** \$2.00. **JE** H21, H32, G35. **KW** Taxes. Capital Gains. Dividends.

AB This paper uses a general equilibrium model to simulate both the effects of a preferential capital gains tax rate on total income tax revenues and the effects of a revenue-neutral substitution between a capital gains preference and marginal income tax rates on economic efficiency and the distribution of income. In the simulations, a capital gains preference increases efficiency by reducing tax distortions between untaxed assets

(household and state and local capital) and taxable business sector assets and between realized and unrealized capital gains (the "lock-in" effect), but reduces efficiency by increasing tax distortions between corporate dividends and retained earnings and between financial assets that produce capital gain income and those that produce ordinary income.

PD August 1990. **TI** The Continued Interest Rate Vulnerability of Thrifts. **AU** Hendershott, Patric H.; Shilling, James D. **AA** Hendershott: Ohio State University. Shilling: not available. **SR** National Bureau of Economic Research Working Paper: 3415; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$2.00. **JE** 312, 314, 311. **KW** Banking, Savings and Loan, Interest Rates.

AB The 1980s S&L debacle is generally viewed as the result of: (1) sharply rising interest rates eliminating the net worth of thrifts funding fixed rate loans with short-term deposits and (2) thrifts responding by taking even greater interest rate and credit risks. The question investigated in this paper is how vulnerable do thrifts remain to an interest rate experience like that which triggered the 1980s S&L debacle? The short answer is that shifts are even more vulnerable in 1989 than they were in 1977.

Hendricks, Darryll

PD June 1990. **TI** Hot Hands in Mutual Funds; The Persistence of Performance, 1974-87. **AU** Hendricks, Darryll; Patel, Jayendu; Zeckhauser, Richard. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 3389; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** G11, E22. **KW** Mutual Funds, Portfolio Choice, Investment.

AB The net returns of no-load mutual growth funds exhibit a hot hands phenomenon during 1974-87. When performance is measured by Jensen's alpha, mutual funds that perform well in a one year evaluation period continue to generate superior performance in the following year. Underperformers also display short-run persistence. Hot hands persists in 1988 and 1989. The success of the hot hands strategy does not derive from selecting superior funds over the sample period. The timing component -- knowing when to pick which fund -- is significant. These results are robust to alternative equity portfolio benchmark, such as those that account for firm size effects and mean reversion in returns. Capitalizing on the hot hands phenomenon, an investor could have generated a significant, risk-adjusted excess return of 10% per year.

Hendricks, Kenneth

PD October 1990. **TI** Auctions for Oil and Gas Leases with an Informed Bidder and a Random Reservation Price. **AU** Hendricks, Kenneth; Porter, Robert H.; Wilson, Charles A. **AA** Hendricks: University of British Columbia. Porter: Northwestern University. Wilson: New York University. **SR** New York University Economic Research Reports: 90-47; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 58. **PR** no charge. **JE** D44, L71, Q38. **KW** Bidding, Oil, Auctions.

AB The paper analyzes a first price, sealed bid auction with a random reservation price where the object has an unknown common value, but one buyer has better information than the others. We permit the reservation price to be correlated with the information of the informed buyer, which reflects both his

assessment of the value of the object and the probability of rejection at any bid. Assuming all random variables are affiliated, we establish the following results. (1) The rate of increase in the distribution of the uninformed bid is never greater than the rate of increase in the distribution of the informed bid. (2) The distributions are identical at bids above the support of the reservation price. (3) The informed buyer is more likely to submit low bids. We demonstrate that these restrictions are satisfied by bid data from the federal sales of offshore drainage leases.

PD October 1990. **TI** Auctions for Oil and Gas Leases with an Informed Bidder and a Random Reservation Price. **AU** Hendricks, Kenneth; Porter, Robert H.; Wilson, Charles A. **AA** Hendricks: University of British Columbia. Porter: Northwestern University. Wilson: New York University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 910; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 57. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** D44, L71. **KW** Bidding, Oil, Auctions, Auction Theory.

AB The paper analyzes a first price, sealed bid auction with a random reservation price where the object has an unknown common value, but one buyer has better information than the others. We permit the reservation price to be correlated with the information of the informed buyer, which reflects both his assessment of the value of the object and the probability of rejection at any bid. Assuming all random variables are affiliated, we establish the following results. (1) The rate of increase in the distribution of the uninformed bid is never greater than the rate of increase in the distribution of the informed bid. (2) The distributions are identical at bids above the support of the reservation price. (3) The informed buyer is more likely to submit low bids. We demonstrate that these restrictions are satisfied by bid data from the federal sales of offshore drainage leases.

Hendry, David F.

PD November 1990. **TI** Evaluating Dynamic Econometric Models by Encompassing the VAR. **AU** Hendry, David F.; Mizon, Grayham E. **AA** Hendry: Nuffield College, Oxford and University of California, San Diego. Mizon: Southampton University. **SR** Oxford Applied Economics Discussion Paper: 102; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 29. **PR** not available. **JE** C13, C22, C52, C53. **KW** Econometric Models, Exogeneity, Money Demand.

AB A sequential modeling strategy is described for analyzing nonstationary time series with co-integrating relationships. Reducing a closed, congruent VAR to an open SEM requires mapping from I(1) to I(0), weak exogeneity and encompassing, to respectively validate inference, conditioning and simplification. Correct dynamic specification ensures an SEM parsimoniously encompasses the VAR, and entails it encompasses other SEMs. Recursive analysis of a VAR for money, prices, incomes, and interest rates in the U.K. reveals its constancy. Co-integrating vectors for money demand and excess demand for goods are incorporated in an SEM which encompasses the VAR, clarifying earlier research.

TI Testing the Lucas Critique: A Review. **AU** Favero, Carlo; Hendry, David F.

TI Testing Super Exogeneity and Invariance in Regression Models. **AU** Engle, Robert F.; Hendry, David F.

Herk, Leonard F.

PD January 1990. **TI** Consumer Self-Selection and the Cournot Solution in a Duopoly Model of Capacity and Price Competition. **AA** Johns Hopkins University and Tulane University. **SR** Johns Hopkins Department of Political Economy Working Paper: 254; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 54. **PR** no charge. **JE** D43, L11, L13. **KW** Cournot Equilibrium. Duopoly. Capacity Constraints. Consumer Behavior. Price Competition.

AB This paper considers the effect of consumer self-selection on equilibrium in a two-stage model of duopolistic capacity commitment and subsequent price competition. Nonzero switching costs discourage some consumers from seeking service at a low price supplier who lacks sufficient capacity to serve the entire market. For example, monthly subscription fees constitute a switching cost in duopoly markets for cellular telephone service. Once capacities and prices are chosen, residual firm demands are generated from the firm selection decisions of individual consumers on the basis of firms' prices and their induced degrees of service reliability.

TI Inertia, Risk Spreading, and the Arrow-Lind Theorem. **AU** Chew, S. H.; Herk, Leonard F.

TI Mean Independence and Uncorrelatedness. **AU** Chew, S. H.; Herk, Leonard F.

Hess, Gregory D.

TI Are Higher Levels of Inflation Less Predictable? A State-Dependent Conditional Heteroskedasticity Approach. **AU** Brunner, Allan D.; Hess, Gregory D.

PD December 1990. **TI** Are Tax Rates too Volatile? An Application of Volatility Tests to United States Tax Rates: 1870-1989. **AA** Board of Governors of the Federal System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 142; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 24. **PR** no charge. **JE** 323, 322. **KW** Taxation. Tax Rates. Government Expenditures.

AB The simple theory of optimal taxation implies that tax rates should follow a random walk. Under this null hypothesis, variance inequality bounds on the intertemporal government budget constraint are derived. Using the methodology of Mankiw, Romer and Shapiro [1985], these bounds are calculated for United States data from 1870-1989. It is found that broad movements in tax rates that correspond to relatively large permanent changes in government expenditures are adequately "smoothed". However, it appears that tax rates have been excessively volatile in the post-war U.S. experience. This suggests that either (1) tax rates during this time period have over-reacted to temporary fluctuations in government expenditures, or (2) tax rate movements are driven by political forces, or (3) the random walk theory of taxation is overly simplistic.

PD December 1990. **TI** A Test of the Theory of Optimal Taxation for the United States: 1870-1989. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 143; C/O Jeffrey C. Fuhrer, Mail

Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 19. **PR** no charge. **JE** 323, 321. **KW** Taxation. Tax Rates. Tax Policy.

AB A popular theory of optimal tax policies suggests that tax rates should follow a random walk. This paper extends the existing literature in three ways. (1) the impact on the marginal utility of consumption when the government chooses a tax plan to smooth the distorting impact of taxes is considered. As a direct result, the government's preferences can be estimated. (2) Exogenous changes in the real rate of interest are incorporated into the government's optimal tax plan. (3) I relax the assumption that the elasticity of output with respect to taxation is constant over time, since this assumption is unlikely to hold during the World War periods. I find empirical support for considering fluctuations in the elasticity of output with respect to taxation when testing the optimal taxation hypothesis. Allowing for these movements, there is evidence that the government discounts the future by approximately 2-3% a year, and attempts to smooth the distorting impact of taxes on utility.

Hettich, Walter

TI Debt and Tariffs: An Empirical Investigation of the Evolution of Revenue Systems. **AU** Winer, Stanley L.; Hettich, Walter.

Hillier, Grant H.

PD April 1990. **TI** On Multiple Diagnostic Procedures for the Linear Model. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 3/90; Monash University. Clayton, Victoria 3168, Australia. **PG** 29. **PR** no charge. **JE** 211. **KW** Hypothesis Test. Critical Regions. Linear Regression. Model Selection. Misspecification Testing.

AB Multiple diagnostic procedures entail a partition of the sample space into a set of critical regions. When the procedure is designed in a piecemeal fashion these regions bear no particular relation to one another, and the procedure as a whole can be logically inconsistent. We use a simple example to illustrate these difficulties, and also to suggest criteria that should be satisfied by any diagnostic procedure that is to meet the needs of the practitioner.

PD September 1990. **TI** Some Further Exact Results for Structural Equation Estimators. **AU** Hillier, Grant H.; Skeels, Christopher L. **AA** Hillier: Monash University. Skeels: Australian National University. **SR** Monash Department of Econometrics Working Paper: 13/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 35. **PR** no charge. **JE** 211. **KW** Structural Equation Model. Conditional Distributions. Exact Distribution. Mean Square Error. Exponential Models. Coefficient Estimation.

AB In the context of the single structural equation model, we derive a number of exact results that extend and/or simplify results hitherto available. First, we obtain expressions for both the conditional and unconditional densities of the limited information maximum likelihood estimator for the coefficients of the endogenous variables. The unconditional result is considerably simpler than the corresponding result obtained earlier by Phillips (1985), and we indicate how this result can be used to obtain distribution results for the coefficients of the exogenous variables in exactly the manner used in Phillips (1984a) for the ordinary least squares and two-stage least

squares estimators. Next, we obtain expressions for the mean square error of the ordinary least squares/two-stage least squares estimators for the coefficients of the exogenous variables. Finally, a number of generalizations of these results are indicated, and we explain briefly how these results can contribute to further attempts to understand the general problems of inference in this model.

PD November 1990. **TI** On the Variability of Best Critical Regions and the Curvature of Exponential Models. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 16/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 33. **PR** no charge. **JE** 211. **KW** Neyman-Pearson Lemma. Critical Region. Exponential Models. Hypothesis Testing. Power Function.

AB The Neyman-Pearson Lemma usually implies that the best critical region (BCR) for testing a given hypothesis varies with the alternative. For this reason, most commonly used tests are justified either by replacing the objective of maximum power by a weaker objective such as maximum slope of the power function at the null, or by resorting to some other testing principle, such as a likelihood ratio test. However, BCRs that vary with the alternative may sometimes in fact vary very little, and in this paper I suggest a measure of the variability of such regions. Some examples confirm the conjecture that there are cases where the BCRs vary very little.

Hines James R., Jr

PD December 1990. **TI** The Transfer Pricing Problem: Where the Profits are. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 64; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 38. **PR** no charge. **JE** F23, H25, H21. **KW** Multinational Firms. Tax System. Taxes. Pricing.

AB Much of the world's international trade takes place every year as transactions between related affiliates of multinational companies. These transactions and the prices at which they take place have important tax consequences for firms and governments, since tax rates often differ significantly between countries. The transfer pricing problem is the government's choice of a rule for pricing traded intermediate goods; the rule affects not only the taxes firms pay to governments but also the incentives firms face in allocating resources. This paper proposes a new method of choosing transfer prices to allocate profits between producing centers, one that is consistent with simple concepts of income in the tax system, is unaffected by arbitrary labeling of goods and firms, and other firms efficient incentives.

Hines, James R., Jr

PD September 1990. **TI** Fiscal Paradise: Foreign Tax Havens and American Business. **AU** Hines, James R., Jr.; Rice, Eric M. **AA** Hines: Princeton University. Rice: Harvard University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 56; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 61. **PR** no charge. **JE** F21, H25. **KW** Foreign Tax Credit. Foreign Investment. Taxes.

AB The offshore tax haven affiliates of American corporations account for more than a quarter of U.S. foreign

direct investment, and nearly a third of the foreign profits of U.S. firms. This paper analyzes the origins of this tax haven activity and its implications for the U.S. and foreign governments. Based on the behavior of U.S. firms in 1982, it appears that American companies report extraordinarily high profit rates on both their real and their financial investments in tax havens. We calculate from this behavior that the tax rate that maximizes tax revenue for a typical haven is around 6%. The revenue implications for the U.S. are more complicated, since tax havens may ultimately enhance the ability of the U.S. government to tax the foreign earnings of American companies.

PD December 1990. **TI** The Flight Paths of Migratory Corporations. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 65; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 51. **PR** no charge. **JE** F23, F21, H25, H26. **KW** Multinational Firms. Foreign Investment. Tax System. Corporate Taxes.

AB American corporations earn a large and growing share of their profits from their foreign operations. U.S. law taxes American corporations on their worldwide income, and in so doing may discourage new firms from making the United States their primary residence while encouraging American corporations to leave the country for offshore tax havens. This paper evaluates the incentives American firms face in considering whether to relocate their site of legal residence abroad. The case of McDermott Inc., an American multinational that reorganized as a Panamanian corporation in 1982, is considered in detail. Aggregate data suggest that firms' incentives to follow McDermott in relocating offshore rose steadily through the 1980s until passage of the Tax Reform Act of 1986, which substantially reduced the payoff from relocating.

Ho, Thomas S. Y.

PD May 1990. **TI** Key Rate Durations: A Measure of Interest Rate Risks Exposure. **AA** Global Advanced Technology Corporation. **SR** New York University Salomon Brothers Center Working Paper: S-90-17; 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** 23. **PR** not available. **JE** 313, 311. **KW** Interest Rates. Securities Market. Securities. Contingent Claims.

AB In our fixed income securities markets, there is a wide variety of interest rate contingent claims: Treasuries, corporates issues, mortgage-backed securities, futures, options, rate caps and floors, swaps and many types of Collateralized Mortgage Obligations including Planned Amortization Classes and their companions, Z tranches and others. These securities are distinguished from each other not just because they have different issuers or that they are traded in different markets. These securities are classified as such by the issuers and purchasers because they may also be fundamentally different in their interest rate risk exposure. Much research has focused on the valuation of interest rate contingent claims. Yet, relatively scant research has been devoted to analyzing the interest rate risk exposure of each type of instr.

Hobson, Paul A. R.

PD June 1990. **TI** On the Form of the Locational Efficiency Condition in Local Public Goods Models.

AA Acadia University. SR Queen's John Deutsch Institute Discussion Paper: 12; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 10. PR \$3.00 Canada and U.S.; \$3.50 Foreign. JE H41, R13, R23. KW Congestion Costs. Public Goods. Migration.

AB This paper clarifies the treatment of congestion costs in models with migration and impure public goods. In particular, it is shown that the proposition that the form of the locational efficiency condition is independent of the level of public good provision depends critically on the measure of congestion costs that is used and does not hold in general.

Hoffman, Elizabeth

PD October 1990. TI Using Laboratory Experimental Auctions in Marketing Research: A Case Study of New Packaging for Fresh Beef. AU Hoffman, Elizabeth; Menkhaus, Dale J.; Field, Ray A.; Whipple, Glen D. AA Hoffman: University of Arizona. Field, Menkhaus and Whipple: University of Wyoming. SR University of Arizona Economics Working Paper: 90-23; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. PG 37. PR no charge. JE M31, D44, C91. KW Marketing. Auctions. Product Development. Experimental Economics.

AB This paper summarizes marketing research using demand revealing experimental auctions to estimate the value consumers place on new product, vacuum packaging for fresh beef. The paper first discusses the use of experimental auctions as a general technique for eliciting value, especially for new products during the preliminary market research phase of new product development. We then illustrate the use of this technique as part of a laboratory test market for vacuum packaged fresh beef.

PD November 1990. TI The Divergence between Willingness-To-Pay and Willingness-To-Accept Measures of Value. AU Hoffman, Elizabeth; Spitzer, Matthew L. AA Hoffman: University of Arizona. Spitzer: University of Southern California and California Institute of Technology. SR Caltech Social Science Working Paper: 755; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. PG 60. PR no charge. JE 916, 921, 024. KW Coase Theorem. Valuation. Commodities. Legal System.

AB Do people value commodities more when they own the commodities than when they do not? Although economic models generally presume that economic agents evaluate commodities independently of whether the agents own those commodities or not, an assumption that we term the "basic independence" assumption, researchers in economics and law are starting to doubt that this is true. These doubts about the soundness of the basic independence assumption challenge accepted economic doctrine. In this paper we present, organize, and critique the modern evidence on the basic independence assumption so as to draw together the learning of the economists and the lawyers. We will first investigate the evidence on the divergence between willingness-to-accept and willingness-to-pay measures of value, and then ask about possible explanations for the evidence. Next, we will explore the implications of the divergence for analysis in law and economics.

PD November 1990. TI Institutional Choice and the Development of U.S. Agricultural Policies in the 1920s. AU Hoffman, Elizabeth; Libecap, Gary D. AA University

of Arizona. SR University of Arizona Economics Working Paper: 90-40; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. PG 20. PR no charge. JE N52, Q13. KW Economic History. Agriculture. Agricultural Policy. Cooperatives.

AB We examine U.S. agricultural policy as an institutional choice. With falling crop prices in the 1920s, farmers appealed to the Federal Government. Price controls in World War I demonstrated government influence in markets. By the 1920s the Federal Government was large enough with resources to intervene in various ways. The alternatives were to assist private cooperatives by providing antitrust exemptions, market information, and enforcement of cooperative rules; or to intervene directly with mandatory output reductions and targeted prices. The policies adopted were influenced by crop specific characteristics and broader market conditions affecting the success of private cooperatives.

Hong, Che-Hsiung

TI Valuation of Variance Forecasts with Simulated Option Markets. AU Engle, Robert F.; Hong, Che-Hsiung; Kane, Alex.

Hoque, Asraul

PD August 1990. TI Structural Unemployment in Australia. AU Hoque, Asraul; Inder, Brett A. AA Monash University. SR Monash Department of Econometrics Working Paper: 10/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 24. PR no charge. JE 824, 821. KW Sectoral Unemployment. Structural Unemployment. Phillips Curve. Okun's Law. Unemployment.

AB This paper examines whether structural unemployment increased in Australia over the last two decades. A simple regression model has been considered for testing the hypothesis of an increase in unemployment in several segments of the labor force over time. Six dimensions of the labor force namely, age, sex, region, duration of unemployment, occupation and industry have been taken into account. Analysis of the regression results reveals that the structural unemployment problem is substantial with respect to age, sex, duration of unemployment, occupation and industry. Regarding region the evidence for structural unemployment is not very strong.

PD November 1990. TI Estimating Aggregate Consumption Function using Random Coefficient Approach: The Australian Case. AA Monash University. SR Monash Department of Econometrics Working Paper: 18/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 28. PR no charge. JE 921. KW Aggregate Consumption. Consumption Function.

AB We estimate a Friedman type consumption function incorporating varying coefficient approach to investigate the changing pattern of consumer responses in Australia using quarterly data from 1959IV to 1988IV. The methodology used was that of Hildreth and Houck (1968), Singh et al (1976) and Hoque (1988b). The Lagrange multiplier test conducted supports the hypothesis of randomness in the response coefficients, suggesting the use of a random coefficient technique rather than an OLS method in estimating our model. We also extended the model by considering separate treatment for both random and the systematic changes in the structural parameters. Our study clearly indicates a strong stickiness in

consumer habits and the results also imply that the consumers tend to adapt to changes in income more and more quickly.

Hoshi, Takeo

PD August 1990. **TI** The Role of Banks in Reducing Financial Distress in Japan. **AU** Hoshi, Takeo; Kashyap, Anil K.; Sharfstein, David. **AA** Hoshi: University of California, San Diego. Kashyap: Federal Reserve Board. Sharfstein: Massachusetts Institute of Technology. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 134; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 39. **PR** no charge. **JE** 521, 522, 312, 313. **KW** Investment. Bankruptcy. Banking. Commercial Banks. Business Finance.

AB This paper explores the idea that financial distress is costly because free-rider problems and information asymmetries make it difficult for firms to renegotiate with their creditors in times of financial distress. We present evidence consistent with this view by showing that Japanese firms with financial structures in which free-rider problems and information problems are likely to be small perform better than other firms after the onset of distress. In particular, we show that firms in industrial groups -- those with close financial relationship to their banks, suppliers, and customers -- invest more and sell more after the onset of distress than non-group firms. Moreover, firms that are not group members but nevertheless have strong ties to a main bank also invest and sell more than firms without strong bank ties.

PD September 1990. **TI** The Role of Banks in Reducing the Costs of Financial Distress in Japan. **AU** Hoshi, Takeo; Kashyap, Anil K.; Scharfstein, David. **AA** Hoshi: University of California, San Diego. Kashyap: Board of Governors of the Federal Reserve System. Scharfstein: Massachusetts Institute of Technology and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3435; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 35. **PR** \$2.00. **JE** 522, 521, 315. **KW** Negotiation. Business Finance. Business Investment. Banking.

AB This paper explores the idea that financial distress is costly because free rider problems and information asymmetries make it difficult for firms to renegotiate with their creditors in times of distress. We present evidence consistent with this view by showing Japanese firms with financial structures in which free rider and information problems are likely to be small perform better than other firms in industrial groups, those with close financial relationships to their banks, suppliers, and customers, invest more and sell more after the onset of distress than non-group firms. Moreover, firms that are not group members, but nevertheless have strong ties to a main bank also invest and sell more than firms without strong bank ties.

PD October 1990. **TI** Evidence on q and Investment for Japanese Firms. **AU** Hoshi, Takeo; Kashyap, Anil K. **AA** Hashi: University of California, San Diego. Kashyap: Federal Reserve Board. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 136; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 57. **PR** no charge. **JE** 313, 522, 631. **KW** Investment. Stock Market. Bubbles. Speculation. Japan. Manufacturing.

AB This paper presents estimates of q from April 1974 to March 1988 for 580 Japanese manufacturing firms. The estimates appear reasonable in several respects. First, the level of q for most firms is just above one. Interestingly, the large jump in the price earnings ratio in 1986 (which has led many to question the rationality of share prices) is not present in q . Second, taxes have important effects on the level of q . Third, the measurement error in q , at least prior to the recent stock market boom appears to be small. Despite the plausibility of the q estimates, the basic and most tractable model relating investment and q does not fair well. The model's estimated parameters are implausible and unstable, and liquidity, which should be irrelevant, also seems to play an important role in influencing investment.

Howitt, Peter

PD October 1990. **TI** Money and Growth Revisited. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9014; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 31. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** O42, E51, E31, O33. **KW** Inflation. Endogenous Growth. Transaction Costs. Money Supply. Growth Model.

AB This paper re-examines the central question of the literature on money and growth; namely the long run real effects of the rate of monetary expansion. It modifies the analysis of that literature in two respects. First, it recognizes the direct effects of inflation on the resources cost of trading activities, costs that do not depend directly on the amount of real balances held. Second, it endogenizes the rate of technical progress, as in the recent literature on endogenous growth. With these modifications the theory can account for a significant real long-run cost of inflation. Monetary expansion will generally affect the growth rate, not just the steady state rate of inflation. Multiple equilibrium growth rates and inflation rates are possible with a given rate of monetary expansion.

Hubbard, R. Glenn

TI Interest Rate Spreads, Credit Constraints, and Investment Fluctuations: An Empirical Investigation. **AU** Gertler, Mark; Hubbard, R. Glenn; Kashyap, Anil K.

Huh, Keun

TI The Determinants of U.S. Intra-Industry Trade. **AU** Scherer, F. M.; Huh, Keun.

Hung, Juann

PD December 1989. **TI** U.S. External Imbalances; Financial Strains and Macroeconomic Choices. **AU** Hung, Juann; Kasman, Bruce; Rodrigues, Anthony. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9003; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 35. **PR** no charge. **JE** F32, G10, F21, E27. **KW** Current Account. Financial Markets. International Investment. Interest Rates.

AB This paper addresses two central issues regarding U.S. external imbalances. First, we estimate the financial market consequences of persistent U.S. current account deficits by using a mean-variance optimization model of international asset demand. Second, we evaluate the macroeconomic implications of alternative paths of substantially reducing the

U.S. current account balance over the next five years by model simulation. Our analysis suggests that permanently higher real U.S. interest rates, or a lower real value of the dollar, or both, may result if no timely policy is taken to redress the external imbalance. While these financial market responses could temporarily reduce the current account deficit, they do so only at the expense of higher inflation and slower capacity growth.

PD January 1990. **TI** Are Exchange Rates Misaligned or Excessively Volatile? An Intertemporal Balance of Payments Equilibrium Approach. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9001; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 64. **PR** no charge. **JE** F31, F32, F21, G15. **KW** Exchange Rates. Financial Markets. International Investment. Foreign Exchange.

AB This paper investigates the existence and extent of exchange rate misalignment and excess volatility. We use a benchmark model of exchange rate determination that integrates the intertemporal external balance condition and short-term financial market equilibrium condition. The results indicate that while the extent of exchange rate volatility does not seem excessive, all currencies under study do display a large degree of misalignment. This model also allows the analyst to assess the impact of investors' time horizon on the equilibrium exchange rate. By comparing actual exchange rates to theoretical exchange rates derived under alternative time horizon assumptions, we show that investors' short-term profit motive seems to dominate their long-term concerns about external balance.

Ichniowski, Casey

PD September 1990. **TI** Human Resource Management Systems and the Performance of U.S. Manufacturing Businesses. **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 3449; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 34. **PR** \$2.00. **JE** 833, 511, 512. **KW** Human Resources. Management System. Managerial Economics. Labor Relations.

AB This paper estimates the effects of systems of human resource management policies on the performance of U.S. manufacturing businesses. OLS results for labor productivity and Tobin's q models both reveal that nonunion businesses that employ a human resource management system with flexible job design, formal training, and workplace communication mechanisms have the highest levels of economic performance. Nonunion businesses with "Union style" human resource management systems involving grievance procedures, seniority-based promotions, and no flexible job design exhibit significantly lower levels of performance. Statistical models are unable to determine whether the more "progressive" human resource management system stimulates economic performance or whether this system is the appropriate choice for better performing businesses.

Inder, Brett A.

TI Structural Unemployment in Australia. **AU** Hoque, Asraul; Inder, Brett A.

Ioannides, Yannis

TI Female Participation and Male Unemployment Duration in Greece: Evidence from the Labour Force Survey.

AU Meghir, Costas; Ioannides, Yannis; Pissarides, Chris.

Iorio, Karl

PD January 1991. **TI** Sequential Equilibria and Cheap Talk in Infinite Signaling Games. **AU** Iorio, Karl; Manelli, Alejandro M. **AA** Iorio: Kaiser Foundation Health Plan. Manelli: Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 915; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 44. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C71, C73. **KW** Signaling. Cheap Talk. Sequential Equilibrium.

AB This paper shows the existence of sequential and weak-best-response equilibria for cheap-talk extensions of signaling games and for a class of signaling games called communication-impervious. An example shows there are well-behaved infinite signaling games with no sequential equilibria. The assumption that talk is cheap seems reasonable in many economic contexts and yields a very straightforward solution to the existence problem in infinite signaling games. The cheap-talk assumption opens the possibility of extending the methods of this paper to prove the existence of equilibrium in more-general extensive-form games with infinite action and information sets.

Isaac, R. Mark

PD October 1990. **TI** Group Size and the Voluntary Provision of Public Goods: Experimental Evidence Utilizing Large Groups. **AU** Isaac, R. Mark; Walker, James M.; Williams, Arlington W. **AA** Isaac: University of Arizona. Walker and Williams: University of Indiana. **SR** University of Arizona Economics Working Paper: 90-25; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 51. **PR** no charge. **JE** H41, C92. **KW** Public Goods. Experimental Economics. Group Size. Group Dynamics.

AB This paper presents new experimental evidence on the premise that small groups are able to provide a pure public good more efficiently than large groups. Experimental procedure are developed to deal with the logistical problems inherent in experiments involving many subjects. Data from Voluntary Contribution Mechanism experiments are reported utilizing group sizes of 4, 10, 40, and 100. These experiments provide replicable results which contradict the widely held view that a group's ability to provide the optimal level of a pure public good is inversely related to group size. On the contrary, groups of size 40 and 100 provide the public good more efficiently than groups of size 4 and 10.

Isard, Peter

TI Externalities, Incentives, and Economic Reforms. **AU** Aizenman, Joshua; Isard, Peter.

Ishikawa, Jota

TI Dynamic Increasing Returns, Technology and Economic Growth in a Small Open Economy. **AU** Fung, Ka-yiu Michael; Ishikawa, Jota.

Iwamoto, Yasushi

PD May 1990. **TI** Japanese Corporate Tax Policy and Direct Investment Abroad. **AA** Osaka University and Australian National University. **SR** Australian National

University Working Paper in Economics and Econometrics: 204; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. PG 24. PR not available. JE 323, 441. KW International Taxation. Taxes. Corporate Taxes. Capital Flows. International Investment.

AB This paper studies the effects of Japanese corporate tax on Japanese direct investment behavior empirically. The Japanese corporate tax burden is discussed in the light of its impact on overseas capital movements. The marginal effective tax rate has risen in the 1980s. Using annual data of 1977-87, the paper estimates the Japanese DIA equation which has a tax variable into the list of explanatory variables. It is shown that the higher cost of capital or tax wedge increases direct investment outflows by parent company transfer. However, due to the lack of data, DIA with retained earnings cannot be analyzed.

Jackman, Richard

PD May 1990. TI Labor-Market Mismatch: A Framework for Thought. AU Jackman, Richard; Layard, Richard; Savouri, Savvas. AA London School of Economics. SR London School of Economics Centre for Economic Performance Discussion Paper: 1; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. PG 93. PR no charge. JE J64, J61, J22, J23. KW Labor Mobility. Unemployment. Labor Supply. Labor Demand.

AB The rise in European unemployment is often blamed on increased mismatch between labor supply and demand - either by age, skill or region. To investigate this, we first develop models to explain differences in unemployment rates - both where labor supply is given and where it responds through labor mobility. Evidence supporting the model is presented using regional data for Britain and the U.S. We then ask how the intersectoral dispersion in unemployment rates is related to the overall average unemployment rate. We conclude from our model that average unemployment increases with the variance of relative unemployment rates across groups. Since this variance is substantial, it explains a good part of total unemployment. But, since the variance has not risen for skill groups or regions, it cannot explain the overall rise in European unemployment.

PD September 1990. TI An Analysis of Migration Based on the Hiring Function. AU Jackman, Richard; Savouri, Savvas. AA London School of Economics and Oxford University. SR Oxford Applied Economics Discussion Paper: 98; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. PG 84. PR not available. JE J61, R23, E24. KW Regional Economics. Migration. Employment. Unemployment.

AB The hiring function represents the process whereby job seekers and vacancies are matched. Migration can be seen as a special case of hiring in which a job seeker in region *i* is matched to a job in region *j*. This paper begins by setting out the extension of the hiring function model to incorporate this special case and then estimates the structural form derived from the theoretical framework. Our model is based on the idea that migration involves the dispersal of the unemployed into job slots across regions. In this way migration will help equalize unemployment rates across regions.

Jaffe, Adam B.

TI Unintended Impacts of Public Investments on Private Decisions: The Depletion of Forested Wetlands. AU Stavins, Robert N.; Jaffe, Adam B.

Jagannathan, Ravi

TI Ex-Day Behavior of Japanese Stock Prices: New Insights from New Methodology. AU Hayashi, Fumio; Jagannathan, Ravi.

Jakeman, Anthony J.

TI Discrimination Procedures for Fitting Nested and Non-Nested Distributions to Environmental Quality Data. AU Bai, Jun; Jakeman, Anthony J.; McAleer, Michael.

TI Estimation and Discrimination of Alternative Air Pollution Models. AU Bai, Jun; Jakeman, Anthony J.; McAleer, Michael.

James, Patrick

PD August 1990. TI Energy Politics in Canada, 1980-81: Threat Power in a Sequential Game. AA McGill University. SR University of Western Ontario Papers in Political Economy: 3; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 46. PR no charge. JE D72, Q43, Q48, C71. KW Rational Choice. Energy. Political System. Government Policy.

AB Almost a decade ago, the Liberal Government announced one of the most controversial policy initiatives in Canadian history, the National Energy Program (NEP). The era of bargaining that followed the Program's announcement on 28 October 1980 represented an intense conflict that encompassed economic and, ultimately, constitutional issues. Very few studies of the program adopt the theoretical perspective of rational choice. With regard to explanation of strategic interaction over energy policy in the era of the NEP, one potentially useful component of rational choice is game theory. Such an approach, focusing on strategic choice, might provide an opportunity to situate the difficult political processes surrounding the NEP within a wider context.

Johnson, Ronald L.

PD October 1990. TI Patronage to Merit: Political Change in the Federal Government Labor Force. AU Johnson, Ronald L.; Libecap, Gary D. AA Johnson: Montana State University. Libecap: University of Arizona. SR University of Arizona Economics Working Paper: 90-30; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. PG 54. PR no charge. JE J45, D72. KW Legislature. Public Employees. Merit System. Political Party.

AB In the late nineteenth century there was a major shift at the federal level away from patronage, by which employees were hired on the basis of party politics, to a merit system. This shift has often been attributed to the work of civic minded reform groups and changes in the party controlling the executive branch. In contrast, we conclude that the shift was largely motivated by pressures exerted by voters on legislators to improve the provision of federal services and by the desire of the President and certain members of the Congress to break local party influence over patronage hiring. The model and empirical results offered emphasize the differential interests

among federal legislators in voting for or against the shift to a merit system.

Jones, Andrew S.

TI From Bad to Worse: Impacts of the 1986 Oil Price Collapse. **AU** Walls, Margaret A.; Jones, Andrew S.

TI Prospects for Reduced Carbon Dioxide Emissions in Automotive Transport. **AU** Darmstadter, Joel; Jones, Andrew S.

Jones, Carol Adaire

TI Are OSHA Health Inspections Effective? A Longitudinal Study in the Manufacturing Sector. **AU** Gray, Wayne B.; Jones, Carol Adaire.

Jordan, James S.

PD July 1990. **TI** Bayesian Learning in Normal Form Games. **AA** University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 257; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Ave. So., Minneapolis, MN 55455. **PG** 27. **PR** free. **JE** 026, 213. **KW** Learning. Nash Equilibrium. Normal Form Game. Bayesian Analysis.

AB This paper studies the asymptotic behavior of Bayesian learning processes for general finite-player, finite-strategy normal form games. Initially, each player is presumed to know his own payoff function but not the payoff functions of the other players. Strategies are initially determined as a Bayesian Nash equilibrium of the incomplete information game in which each player's private characteristic is his payoff function. These strategies are then observed by all players, causing a revision of beliefs. The new beliefs determine a new Bayesian Nash equilibrium and so on. Assuming that the common prior distribution of payoff functions satisfies independence across players, it is proved that the conditional distributions on strategies converge to the set of Nash equilibria with probability one. Under a further assumption that the prior distributions are sufficiently uniform, convergence to the set of Nash equilibria is proved for every profile of payoff functions, that is, for every normal form game.

PD July 1990. **TI** Convergence to Rational Expectations in a Stationary Linear Game. **AA** University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 258; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Ave. So., Minneapolis, MN 55455. **PG** 27. **PR** free. **JE** 026, 213. **KW** Rational Expectations. Linear Game. Learning. Nash Equilibrium.

AB This paper describes several learning processes which converge, with probability one, to the rational expectations (Bayesian-Nash) equilibrium of a stationary linear game. The learning processes include a test for convergence to equilibrium, and a method for changing the parameters of the process when nonconvergence is indicated. This self-stabilization property eliminates the need to impose stability conditions on the economic environment. Convergence to equilibrium is proved for two types of self-stabilizing learning mechanisms: a centralized forecasting mechanism and a decentralized strategy adjustment process. For a version of the decentralized process it is also shown that the publicly observable information, on which learning is based, does not

necessarily reveal anything about the economic environment except the equilibrium.

PD July 1990. **TI** The Exponential Convergence of Bayesian Learning in Normal Form Games. **AA** University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 259; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Ave. So., Minneapolis, MN 55455. **PG** 19. **PR** free. **JE** 026, 213. **KW** Learning. Nash Equilibrium. Normal Form Games. Game Theory. Bayesian Analysis.

AB This paper continues the study of Bayesian learning processes for general finite-player, finite-strategy normal form games. Bayesian learning was introduced in an earlier paper by the present author as an iterative mechanism by which players can learn Nash equilibria. The main result of the present paper is that if prior beliefs are sufficiently uniform and expectations converge to a "regular" Nash equilibrium, then the rate of convergence is exponential.

Joshi, Heather E.

TI Women's Wages in Great Britain. **AU** Ermisch, John F.; Joshi, Heather E.; Wright, Robert E.

Junsen, Zhang

TI Pay-As-You-Go Public Pensions with Endogenous Fertility. **AU** Nishimura, Kazuo; Junsen, Zhang.

Kahn, Charles M.

PD March 1990. **TI** Non-Existence and Inefficiency of Equilibria with American Options and Convertible Bonds. **AU** Kahn, Charles M.; Krasa, Stefan. **AA** Kahn: University of Illinois, Urbana-Champaign. Krasa: University of Illinois, Urbana-Champaign and University of Vienna. **SR** Economics Research Center/NORC Discussion Paper: 90-3; Economics Research Center/NORC, 1155 E. 60th St., Chicago, IL 60637. **PG** 31. **PR** \$2.00; Send requests to Librarian, Economics Research Center. **JE** 313, 022, 021. **KW** Financial Markets. Bonds. Stock Market. Capital Market. Asset Prices.

AB We analyze three different examples of economies with incomplete financial markets. In the first model we consider a bond and a convertible bond, and in the second model a stock and an American put option on the stock. Although there is only one commodity, and asset payoffs therefore do not depend on spot prices, we derive robust non-existence of equilibria in both cases. In the last example we consider American call options with nominal striking prices. We show that in equilibrium the assets can never span. The Arrow-Debreu allocation cannot be implemented and the equilibrium is inefficient. This example is also robust.

Kahn, James A.

PD August 1990. **TI** Debt, Asymmetric Information, and Bankruptcy. **AA** University of Rochester. **SR** University of Rochester Center for Economic Research Working Paper: 238; Department of Economics, University of Rochester, Rochester, NY 14627. **PG** 33. **PR** no charge. **JE** G33, G21. **KW** Debt. Bankruptcy. Asymmetric Information. Financial Intermediation. Credit.

AB This paper provides a model of credit in an optimal contract setting in which a simple debt contract with a default

clause is optimal even when randomization is allowed. An observable liquidation value for projects is the crucial feature that gives rise to debt. The social costs of bankruptcies are due to inefficient liquidations, as the optimal contract generally involves some liquidation of projects whose value exceeds the liquidation value.

Kalai, Ehud

PD September 1990. **TI** Optimal Service Speeds in a Competitive Environment. **AU** Kalai, Ehud; Kamien, Morton I.; Rubinovitch, Michael. **AA** Kalai and Kamien: Northwestern University. Rubinovitch: Technion Israel Institute of Technology. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 901; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 13. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** L11, L13, L80. **KW** Nash Equilibrium. Market Share. Service Sector.

AB This is a study of the economic behavior of vendors of service in competition. A simple model with two competing exponential servers and Poisson arrivals is considered. Each server is free to choose his own service rate at a cost (per time unit) that is strictly convex and increasing. There is a fixed reward to a server for each customer that he serves. The model is designed to study one specific aspect of competition. Namely, competition in speed of service as a means for capturing a larger market share in order to maximize long run expected profit per time unit. A two person strategic game is formulated and its solutions are characterized.

PD September 1990. **TI** Dividing a Cake by Majority: The Simplest Equilibria. **AU** Kalai, Ehud; Baron, David. **AA** Kalai: Northwestern University. Baron: Stanford University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 909; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 18. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C73, C62. **KW** Stochastic Game. Equilibrium.

AB In a stochastic game of dividing a cake by majority, the simplest equilibria are the Baron-Ferejohn (1989) ones. The formal definition of simplicity and the computational methods of the equilibria make use of an automaton measure of complexity adopted for stochastic games.

Kalotay, Andrew

PD June 1990. **TI** Sinking Fund Prepurchases and the Designation Option. **AU** Kalotay, Andrew; Tuckman, Bruce. **AA** Kalotay: Andrew Kalotay Associates and Fordham University. Tuckman: New York University. **SR** New York University Salomon Brothers Center Working Paper: S-90-16; 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** not available. **JE** 521, 522, 313, 311. **KW** Bonds. Sinking Funds. Business Finance. Options.

AB This paper introduces the possibility that issuers can extract bondholder wealth by prepurchasing their own sinking fund debt. The analysis reveals both how issuers should value their designation options, a hitherto ignored indenture, and how they should assign purchases to sinking fund dates when they do not have such options.

Kambhu, John

PD December 1989. **TI** Concealment of Risk and Regulation of Bank Risk Taking. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8919; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 33. **PR** no charge. **JE** G28, G21. **KW** Banking. Regulation. Imperfect Information. Monitoring.

AB This paper analyzes the effectiveness of banking regulation when a bank can conceal its risk taking. Three types of banking regimes are considered: regulation with direct controls, incentives-based regulation, and laissez-faire banking. The relative performance of the three regimes depends on the effectiveness of monitoring. When monitoring errors are small, incentives-based regulation is superior to regulation with direct controls while when monitoring errors are large, regulation with direct controls is the superior regime. Additionally, if the market and the regulator have the same perception of a bank's riskiness, then incentives-based regulation and laissez-faire banking lead to the same level of risk.

Kamien, Morton I.

TI Optimal Service Speeds in a Competitive Environment. **AU** Kalai, Ehud; Kamien, Morton I.; Rubinovitch, Michael.

Kanbur, Ravi

PD November 1990. **TI** Optimal Non-Linear Income Taxation for the Alleviation of Income Poverty. **AU** Kanbur, Ravi; Keen, Michael; Tuomala, Matti. **AA** Kanbur: University of Warwick and the World Bank. Tuomala: University of Jyväskylä. Keen: University of Essex and Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 799; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 20. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** H24, H21, I32. **KW** Poverty. Income Taxes. Taxes. Tax Policy. Tax Rates.

AB This paper is concerned with the optimal use of income information in the design of tax/transfer systems to alleviate poverty. The issue is one of optimal non-linear income taxation, but using a non-welfarist objective function that seems to accord well with the common concerns of policy debate: an income-based poverty index. We show that one of the key results of the welfarist literature is overturned: if it is desirable for everybody to work, the optimal marginal tax rate on the very poorest individuals is strictly negative. More generally, it is argued that the non-welfarist perspective points towards lower marginal tax rates in the lower part of the distribution than does the welfarist. Numerical simulations suggest, however, that this effect is of limited quantitative significance.

Kane, Alex

TI Valuation of Variance Forecasts with Simulated Option Markets. **AU** Engle, Robert F.; Hong, Che-Hsiung; Kane, Alex.

Kane, Edward J.

PD July 1990. **TI** Capital Positions of Japanese Banks. **AU** Kane, Edward J.; Unal, Haluk; Demircuc-Kunt, Asli. **AA** Kane: Ohio State University. Unal: University of Maryland. Demircuc-Kunt: The World Bank. **SR** National Bureau of Economic Research Working Paper: 3401; National Bureau of Economic Research, 1050 Massachusetts Avenue,

Cambridge, MA 02138. **PG** 19. **PR** \$2.00. **JE** G21, O16. **KW** Commercial Banks. Japan. Capital. Stockholders. **AB** This paper measures and analyzes two types of hidden capital at Japanese banks: (1) the net undervaluation present in accounting measures of on-balance-sheet assets and liabilities and (2) the net economic value of off-balance-sheet items. A model is constructed that explains changes in both types of capital as functions of holding-period returns earned in Japan on stocks, bonds, yen, and real estate. The model is applied to annual data covering 1975-1989 and a four-class size/charter partition of the Japanese banking system. For each type of hidden capital and each class of bank, the model develops estimates of the stock market, interest rate, foreign exchange, and real estate sensitivities of returns to bank stockholders.

Kaplan, Steven N.

PD June 1990. **TI** How Risky is the Debt in Highly Leveraged Transactions? Evidence from Public Recapitalizations. **AU** Kaplan, Steven N.; Stein, Jeremy C. **AA** Kaplan: University of Chicago. Stein: Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 3390; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** G34, G31, G32. **KW** Corporate Debt. Equity Risk.

AB This paper presents estimates of the systematic risk of the debt in public leveraged recapitalizations. We calculate the systematic risk of the debt as a function of the difference between the systematic equity risk before and after the recapitalization. The increase in equity risk is surprisingly small after a recapitalization, ranging from 28% to 52% depending on the estimation method. Under the assumption that total company risk is unchanged, the implied systematic risk of the post-recapitalization debt in twelve transactions averages 0.67. Under the alternative assumption that the entire market-adjusted premium in the leveraged recapitalization represents a reduction in fixed costs, the implied systematic risk of this debt averages 0.42.

Karni, Edi

PD October 1990. **TI** Subjective Expected Utility Theory with State-Dependent Preferences. **AA** Johns Hopkins University. **SR** Johns Hopkins Department of Political Economy Working Paper: 260; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. **PG** 23. **PR** no charge. **JE** D81, D82. **KW** Subjective Probabilities. Expected Utility. State-Dependent Preferences.

AB This paper extends Savage's subjective expected utility theory to include state-dependent preferences. The dependence of the decision maker's preferences over consequences on the states of nature is represented by state-specific mappings of the set of consequences onto itself. Within this framework Savage's postulates are reformulated and a generalization of Savage's theorem is obtained. In particular, it is shown that there exist subjective expected utility representations of the preference relation over acts with unique, nonatomic, probability measure on the algebra of all events, and a state-dependent utility function over the set of consequences.

Karp, Larry S.

PD August 1990. **TI** A Dynamic Model of Oligopoly in the Coffee Export Market. **AU** Karp, Larry S.; Perloff, Jeffrey M. **AA** Karp: University of California, Berkeley and

University of Southampton. Perloff: University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 555; 207 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 43. **PR** \$9.00. **JE** F14, L13, Q17. **KW** Exports. Oligopoly. Coffee.

AB A subgame perfect, linear-quadratic dynamic oligopoly model that nests various market structures is estimated for the world coffee export market. Based on this dynamic feedback model, the coffee export market is relatively competitive. The estimated results for the dynamic feedback model are close to those of an open-loop model.

PD August 1990. **TI** Why Industrial Policies Fail: Limited Commitment. **AU** Karp, Larry S.; Perloff, Jeffrey M. **AA** Karp: University of Southampton. Perloff: University of California, Berkeley. **SR** Centre for Economic Policy Research Discussion Paper: 450; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 40. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** L52, E61, F13. **KW** Industrial Policy. Exports. Subsidies. Commercial Policy. Trade Agreements.

AB Government policies designed to give domestic exporters a strategic advantage in world markets are completely effective only if the government can commit to those policies for as long as they affect firms' decisions. Export subsidies or other output policies that affect firms only in the current period could, it is true, be used strategically without long-term commitments, but international agreements or fears of retaliation limit their use. The shorter the period of a government's commitment to an investment or industrial policy that affects firms over many periods, the less its strategic value, because the government loses the "first mover" advantage it would have in a one-period market.

Kashyap, Anil K.

TI The Role of Banks in Reducing Financial Distress in Japan. **AU** Hoshi, Takeo; Kashyap, Anil K.; Scharfstein, David.

TI The Role of Banks in Reducing the Costs of Financial Distress in Japan. **AU** Hoshi, Takeo; Kashyap, Anil K.; Scharfstein, David.

TI Interest Rate Spreads, Credit Constraints, and Investment Fluctuations: An Empirical Investigation. **AU** Gertler, Mark; Hubbard, R. Glenn; Kashyap, Anil K.

PD October 1990. **TI** Production and Inventory Control at the General Motors Corporation During the 1920s and 1930s. **AU** Kashyap, Anil K.; Wilcox, David W. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 135; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 44. **PR** no charge. **JE** 521, 522, 631. **KW** Production Smoothing. Great Depression. Inventories. Manufacturing.

AB This paper develops a rich body of anecdotal evidence showing that General Motors Corporation senior management understood the costs and benefits of production smoothing, and implemented a program of production control roughly 30 years before the economics profession had formally studied the

problem. We use a conventional linear/quadratic model of inventory holding costs, along with new data covering the period from 1925 to 1940 to assess the success of the GM production control procedures. We also extend the existing empirical literature on inventories by showing how to properly account for the nonstationarity of production, sales and inventories.

TI Evidence on q and Investment for Japanese Firms.
AU Hoshi, Takeo; Kashyap, Anil K.

Kaskarelis, Ioannis A.

PD December 1989. **TI** A Quarterly Econometric Model of Macroeconomic Interdependence Group of Five: 1970-198 Group of Five: 1970-1985. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 5/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 49. **PR** not available. **JE** 431, 411, 321, 311. **KW** Current Account. Exchange Rates. Fiscal Policy. Open Economy Model. Monetary Policy. **AB** This paper presents a small scale, short run econometric model of macroeconomic interdependence among the group of five countries, which has a well developed supply side and pays attention to the importance of current account dynamics for the medium run equilibrium. The model is estimated with quarterly data for the period 1970-1985. Using these estimates I conduct some dynamic policy simulations under fixed exchange rates, in order to examine the implications of fiscal and monetary policy for macroeconomic interdependence and also to test the sustainability of a target exchange rate system.

Kasman, Bruce

TI U.S. External Imbalances; Financial Strains and Macroeconomic Choices. **AU** Hung, Juann; Kasman, Bruce; Rodrigues, Anthony.

Keen, Michael

TI Optimal Non-Linear Income Taxation for the Alleviation of Income Poverty. **AU** Kanbur, Ravi; Keen, Michael; Tuomala, Matti.

Kelsey, David

PD September 1990. **TI** The Arbitrage Pricing Theorem with Non Expected Utility Preferences. **AU** Kelsey, David; Milne, Frank. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 217; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 20. **PR** not available. **JE** 311, 022. **KW** Expected Utility. Pricing Theorem. Arbitrage. Finance Theory. Utility Theory.

AB The arbitrage pricing theorem of finance shows that in certain circumstances the price of a financial asset may be written as a linear combination of the prices of certain market factors. This result is usually proved with von Neumann-Morgenstern preferences. In this paper we show that the result is robust in the sense that it will remain true if certain kinds of non expected utility preferences are used. We consider Machina preferences, the rank dependent model and non-additive subjective probabilities.

PD September 1990. **TI** Maxmin Expected Utility and Weight of Evidence. **AA** Australian National University. **SR** Australian National University Working Paper in

Economics and Econometrics: 216; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 23. **PR** not available. **JE** 022, 024. **KW** Expected Utility. Utility Theory. Welfare Economics.

AB Gilboa and Schmeidler (1986) have proposed an extension of subjective expected utility theory called maxmin expected utility (MMEU). In this paper we present a simpler presentation of this theory. A possible criticism of MMEU is that it can allow a strictly dominated action to be chosen. We suggest an extension of MMEU which does not have this disadvantage. MMEU is related to the earlier notion of weight of evidence and an application to welfare economics is discussed.

Kemp, Murray C.

TI A Simple Model of Useless Speculation. **AU** Sinn, Hans-Werner; Kemp, Murray C.

Kennedy, James E.

PD October 1990. **TI** An Analysis of Revisions to the Industrial Production Index. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 109; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 17. **PR** no charge. **JE** C43, E23, E27. **KW** Industrial Production. Simulation Model.

AB Revisions to percent changes in the total index of industrial production contain systematic components and are correlated with other information available at the time the provisional estimates are prepared, indicating that the preliminary estimates are inefficient. Filters for the provisional estimates that exploit these inefficiencies are estimated, and their performance is evaluated in out-of-sample simulations. The simulation results indicate that the filtered estimates are unbiased and contain lower root mean square errors than the provisional estimates.

Keuzenkamp, Hugo A.

PD August 1990. **TI** Perceived Constraints for Dutch Unemployment Policy. **AU** Keuzenkamp, Hugo A.; van der Ploeg, Frederick. **AA** Tilburg University. **SR** Centre for Economic Policy Research Discussion Paper: 438; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 20. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** O52, J68. **KW** Unemployment. Economic Development. Netherlands.

AB This paper discusses the problems the Dutch economy has experienced during the last seven years, pinpoints problems for future developments of the Dutch economy, and surveys the political-economic debate in the Netherlands. The focus is on the unemployment problem, still unsolved and therefore important for policy analysis. Several constraints for unemployment policy, internal and external, are discussed; government finance and taxation; exchange rates; the balance of payments; credit and capital availability; and constraints for investing in the future.

Kim, In Joon

PD May 1990. **TI** The Analytic Valuation of American Options. **AA** New York University. **SR** New York

University Salomon Brothers Center Working Paper: S-90-15; 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** 23. **PR** not available. **JE** 313, 311. **KW** Options. Futures Contracts.

AB No analytic solution exists for the valuation of American options written on futures contracts and foreign currencies for which early exercise may be optimal. This paper formulates the American option valuation problem in economically and mathematically meaningful ways. This enables us to derive valuation formulas for American options. The properties associated with the optimal exercise boundary are examined and a numerical technique to implement the valuation formulas is present.

Kimball, Miles S.

PD July 1990. **TI** Precautionary Saving and the Marginal Propensity to Consume. **AA** University of Michigan. **SR** National Bureau of Economic Research Working Paper: 3403; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 42. **PR** \$2.00. **JE** D11, D31, G11. **KW** Wealth Distribution. Consumption. Permanent Income Hypothesis.

AB The marginal propensity to consume out of wealth is important for evaluating the effects of taxation on consumption, assessing the possibility of multiple equilibria due to aggregate demand spillovers, and explaining observed variations in consumption. It is also a component of the interest elasticity of consumption and the risk aversion of the value function which gives the expected present value of utility as a function of wealth. This paper analyzes the effect of uncertainty on the marginal propensity to consume within the context of the Permanent Income Hypothesis. Given plausible conditions on the utility function, income risk is found to raise the marginal propensity to consume out of wealth in a multiperiod model with many risky securities. The marginal investment portfolio for additions to wealth is also characterized.

King, Ian

PD June 1990. **TI** Industrial Blackmail of Local Governments. **AU** King, Ian; McAfee, R. Preston; Welling, Linda. **AA** King and Welling; University of Calgary. McAfee; California Institute of Technology, University of Western Ontario, and University of Texas. **SR** Caltech Social Science Working Paper: 739; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 14. **PR** no charge. **JE** 324, 941, 511. **KW** Auctions. Local Governments. Spatial Theory. Infrastructure. Government Spending. Investment.

AB A dynamic model of inter-governmental competition for investment is presented, where the investment represents a potentially large source of tax revenue for the local governments, and the local productivity of investment is uncertain. A single firm decides where to locate its new plant in each period by conducting an auction, soliciting bids from the local governments. Equilibrium subsidies from the local governments are derived, as well as conditions under which the firm will switch locations between periods. A second issue addressed in this paper is local government strategic investment in infrastructure. We consider a two-state game in which local governments first choose a level of infrastructure (which is

costly to build), then participate in the sequential auction described above.

King, Maxwell L.

PD April 1990. **TI** Locally Optimal One-Sided Tests for Multiparameter Hypotheses. **AU** King, Maxwell L.; Wu, Ping X. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 2/90; Monash University, Clayton, Victoria 3168, Australia. **PG** 29. **PR** no charge. **JE** 211. **KW** Autocorrelation. Heteroskedasticity. Invariance. Lagrange Multiplier Test. Linear Regression.

AB Recently, there has been an increased awareness of the one-sided nature of many econometric testing problems. We show how locally most mean powerful critical regions can be constructed and note that they suggest a new form for the Lagrange multiplier test in one-sided testing problems. Applications considered in the context of the linear regression model include joint one-sided testing for non-zero regression coefficients, autoregressive disturbances, heteroskedastic disturbances, random regression coefficients and variance component.

TI Optimal Invariant Tests for the Autocorrelation Coefficient in Linear Regressions with Stationary or Nonstationary AR(1) Errors. **AU** Dufour, Jean-Marie; King, Maxwell L.

TI Testing Moving Average against Autoregressive Disturbances in the Linear Regression Model. **AU** Silvapulle, Paramsothy; King, Maxwell L.

PD August 1990. **TI** Tutoring in Economic Statistics: The Monash Experience. **AU** King, Maxwell L.; Shah, Chandra; van Garderen, Kees Jan. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 11/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 9. **PR** no charge. **JE** 012, 912. **KW** Quality Control. Tutorials. Workshops. Student Evaluation. Teaching. Education.

AB First-year Economic Statistics at Monash University is a compulsory two-semester course for students enrolled in the B.EC degree. Total enrollment is typically around 740 students. Physical constraints have kept tutorial class sizes to an average of 15 students. The majority of tutors are postgraduate students working as part-time tutors. Few, if any, have had any formal training in teaching and for most it is their first teaching experience. Also different cultural and language backgrounds appeared to be contributing to an unacceptable degree of heterogeneity across tutorials. This prompted the department to initiate a series of workshops to improve the quality of tutorials. This paper describes the process leading up to the first workshop and the conclusions that came out of it.

TI The Locally Unbiased Two-Sided Durbin-Watson Test. **AU** Grose, Simone D.; King, Maxwell L.

King, Mervyn

PD May 1990. **TI** Volatility and Links Between National Stock Markets. **AU** King, Mervyn; Sentana, Enrique; Wadhvani, Sushil. **AA** London School of Economics. **SR** National Bureau of Economic Research Working Paper: 3357; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 34. **PR** \$2.00. **JE** 313. **KW** Stock Market. Stock Returns. Risk Premium. Business Finance.

AB The empirical objective of this study is to account for the time variation in the covariances between markets. Using data on sixteen national stock markets, we estimate a multivariate factor model in which the volatility of returns is induced by changing volatility in the orthogonal factors. Excess returns are assumed to depend both on innovations in observable economic variables and on unobservable factors. The risk premium on an asset is a linear combination of the risk premia associated with factors. The main empirical finding is that only a small proportion of the time variation in the covariances between national stock markets can be accounted for by observable economic variables. Changes in correlations markets are driven primarily by movements in unobservable variables.

Kishor, Nalin

TI The Estimation of Consumer Preferences for Attributes: A Comparison of Hedonic and Discrete Choice Approaches. **AU** Cropper, Maureen L.; Deck, Leland; Kishor, Nalin; McConnell, Ted.

Knight, John B.

PD May 1990. **TI** The Determinants of Urban Income Inequality in China. **AU** Knight, John B.; Lina, Song. **AA** Knight: Institute of Economics and Statistics, Oxford. Lina: Chinese Academy of Social Sciences. **SR** Oxford Applied Economics Discussion Paper: 91; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 46. **PR** not available. **JE** D12, E21, I31, J31, E25. **KW** China. Income Distribution. Wage Structure. Households. Urban Economics.

AB A national urban household survey for China in 1986 is analyzed to examine the determinants and the extent of income inequality. The influence of age, education, occupation, ownership category, sex, region and their various inter-relationships, are studied. Estimates of income inequality among household heads and households are also made. By presenting a blend of institutional and statistical analysis, the emphasis throughout is placed on explanation. By international standards the urban wage structure in China is extremely compressed. This reflects the egalitarian objectives and interventionist instruments of government. Yet in some of the results the Chinese employment system is found to mimic a labor market. Policy implications are drawn.

PD November 1990. **TI** The Spatial Contribution to Income Inequality in Rural China. **AU** Knight, John B.; Song, Lina. **AA** Institute of Economics and Statistics, Oxford. **SR** Oxford Applied Economics Discussion Paper: 106; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 21. **PR** not available. **JE** R11, R12, R13, R58. **KW** China. Rural Households. Income Distribution. Agriculture. Public Policy.

AB An income function analysis is conducted of the 2,400 (rural) counties of China, using cross-section data. Income inequality among counties is considerable and accounts for the major part of inequality among rural households in China. County income per capita is well explained by province, terrain, and agricultural activity. An analysis of time series data suggests that a process of cumulative causation operated in the decade after the rural reforms of 1978, increasing spatial inequality in rural investment, industrialization and income. Fiscal redistribution from richer to poorer areas weakened the process but failed to stem it.

Kopp, Raymond J.

PD December 1989. **TI** An Economic Appraisal of the DC Appeals Court Ruling on the DOT Regulations for Natural Resource Damage Assessments. **AU** Kopp, Raymond J.; Portney, Paul R.; Smith, V. Kerry. **AA** Kopp and Portney: Resources for the Future. Smith: North Carolina State University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-08; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 20. **PR** \$2.25 prepaid (U.S. funds only). **JE** 024, 721, 722, 916. **KW** Natural Resources. Litigation. Liability. Pollution.

AB Litigation emanating from the nation's Superfund law is now a booming business. For the most part, this legal activity involves liability for cleanup costs. However, it may not be long until attention shifts to another class of cases -- those focusing on the post-cleanup liability of parties potentially responsible for residual injury to natural resources. These natural resource damage cases may eventually become as prevalent and as costly as cleanup cases. The purpose of this paper is to review, from an economic perspective, the recent ruling of the District of Columbia, Court of Appeals concerning the Department of the Interior rules for natural resource damage assessments.

PD May 1990. **TI** Consistent Estimation and Inference for Econometric Frontier Models Estimated by Least Squares. **AU** Kopp, Raymond J.; Mullahy, John. **AA** Kopp: Resources for the Future. Mullahy: Trinity College and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-17; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 13. **PR** \$2.25 prepaid (U.S. funds only). **JE** 211. **KW** Frontier Models. Method of Moments. Asymptotic Theory. Ordinary Least Squares.

AB This paper generalizes a result of Olson, Schmidt and Waldman (1980) on the derivation of asymptotic distribution of the corrected ordinary least squares method of moments frontier estimator. The practical utility of such an estimator is enhanced if one has available an easily computed, consistent estimator of its asymptotic covariance matrix. The authors show in this paper that computation of such an estimator is in fact quite straightforward, and present a general estimation framework in which alternative assumptions about the model's stochastic structure can be tested.

Korobov, Vladimir

TI Popular Attitudes towards Free Markets: The Soviet Union and the United States Compared. **AU** Shiller, Robert J.; Boycko, Maxim; Korobov, Vladimir.

Korobow, Leon

PD November 1989. **TI** A New Look at U.S. Banking Strategy and Structure in the 1980s. **AU** Korobow, Leon; Stuhr, David P. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8917; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 31. **PR** no charge. **JE** G21, G11, G24. **KW** Banks. Portfolio Choice. Commercial Banks.

AB This paper employs cluster analysis to determine strategic groupings of bank holding companies from data

covering all bank holdings companies having at least \$500 million in total assets as of the end of 1980, 1985 and 1987. The clustering procedure uses 10 key discretionary portfolio variables. An optimum number of clusters is selected with the help of a process that maximizes normality in the distributions around the means of the variables that define the clusters. Then the paper shows how the assets accounted for by strategic grouping have affected nationwide concentration of banking assets, as measured by a Herfindahl Index, noting that such concentration has declined, particularly in those groups that include the nation's most important banking organizations.

Kotlikoff, Laurence J.

PD May 1990. **TI** Some Inefficiency Implications of Generational Politics and Exchange. **AU** Kotlikoff, Laurence J.; Rosenthal, Robert W. **AA** Boston University. **SR** National Bureau of Economic Research Working Paper: 3354; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 23. **PR** \$2.00. **JE** 322, 321, 025, 024. **KW** Altruism. Life Cycle Model. Government Policy. Public Goods.

AB Generational selfishness is a central assumption in the vast literature on the life cycle model. Much of this literature deals with the impact of alternative government policies in light of self-interested generational behavior. Surprisingly, the choices of governments in virtually all of these analyses are assumed to be independent of the preferences of the selfish generations these governments presumably represent. We address this anomaly by modeling each generation as having a government that strictly represents its interests. Such selfish generational governments will potentially distort the economy along a number of dimensions. We consider two types of inefficiencies that have received little or no attention in the literature. The first is the monopolization of factor supplies, and the second is the under or over provision of durable public goods.

TI The Provision of Time to the Elderly by their Children. **AU** Boersch-Supan, Axel; Gokhale, Jagadeesh; Kotlikoff, Laurence J.; Morris, John.

TI The Provision of Time to the Elderly by their Children. **AU** Boersch-Supan, Axel; Gokhale, Jagadeesh; Kotlikoff, Laurence J.; Morris, John.

TI Tax Aspects of Policy towards Aging Populations: Canada and the United States. **AU** Auerbach, Alan J.; Kotlikoff, Laurence J.

TI U.S. Demographics and Savings: Predictions of Three Saving Models. **AU** Auerbach, Alan J.; Cai, Jinyong; Kotlikoff, Laurence J.

Krasa, Stefan

TI Non-Existence and Inefficiency of Equilibria with American Options and Convertible Bonds. **AU** Kahn, Charles M.; Krasa, Stefan.

Krautkraemer, Jeffrey A.

PD June 1990. **TI** Population Growth, Soil Fertility, Nonconvexities, and Agricultural Intensification. **AA** Washington State University. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-11; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC

20036. **PG** 30. **PR** \$5.00 prepaid (U.S. funds only). **JE** 717, 716, 721. **KW** Agriculture. Soil Fertility. Natural Resources.

AB This paper presents a renewable resource model of soil fertility with a nonconvexity in the net benefit function. In this setting, recurring cycles of cropping and fallow can be the optimal soil management strategy. The model is used to illuminate the Boserup discussion of agricultural development in which population growth is a precondition for agricultural intensification, defined as an increase in the frequency of cropping.

PD June 1990. **TI** Continuous and Cyclical Farming Strategies for Soil Management for Sustainable Agriculture. **AA** Washington State University. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-12; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 30. **PR** \$5.00 prepaid (U.S. funds only). **JE** 717, 716, 721. **KW** Agriculture. Cultivation. Farming. Natural Resources. Land.

AB This paper considers continuous and cyclical farming strategies for the management of soil resources for sustainable agriculture. The results of the Lewis and Schmalensee (1975, 1977, 1979) analysis of the optimal use of a renewable resource in the presence of nonconvexities is used to demonstrate that cycles of exploitation (farming) and regeneration (bush fallow) can be the optimal strategy for soil management for sustainable agriculture.

Krelove, Russell

PD June 1989. **TI** Efficient Tax Exporting. **AA** University of Toronto. **SR** Queen's John Deutsch Institute Discussion Paper: 6; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 22. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** H71, H72, R13. **KW** Public Finance. Taxes. Local Governments. Government Spending.

AB In a multi-jurisdiction economy with free mobility of households between communities, some portion of any community's tax is incident upon nonresident landowners. It is shown that when the objective of a community is taken to be the level of satisfaction of its residents, a fully efficient allocation is a (Nash) equilibrium of the decentralized game. In general no local tax structure that restricts a community's tax base to residents can attain the optimum; thus tax exporting is necessary for independent local government behavior to be consistent with efficiency.

Krueger, Alan

TI Does School Quality Matter? Returns to Education and the Characteristics of Public Schools in the United States. **AU** Card, David; Krueger, Alan.

Krugman, Paul

PD August 1990. **TI** Target Zones with Limited Reserves. **AU** Krugman, Paul; Rotemberg, Julio. **AA** Massachusetts Institute of Technology. **SR** National Bureau of Economic Research Working Paper: 3418; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** \$2.00. **JE** 431, 311. **KW** Exchange Rates. Speculation. Central Bank. Gold Standard.

AB Like a fixed exchange rate, a target zone system may be subject to speculative attacks when the reserve of the central

bank are limited. This paper analyzes such speculative attacks and their implications; it shows that the recently developed "smooth pasting" model of target zones should be viewed as a special case that emerges only when reserves are sufficiently large. The paper then uses the target zone framework to resolve a seeming paradox in predicting speculative attacks on a gold standard, arguing that such a standard may best be viewed as the boundary between one-sided target zones.

Krupnick, Alan J.

PD February 1990. **TI** The Effect of Information on Health Risk Valuations. **AU** Krupnick, Alan J.; Cropper, Maureen L. **AA** Krupnick: Resources for the Future. Cropper: University of Maryland and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-13; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 37. **PR** \$2.25 prepaid (U.S. funds only). **JE** 913. **KW** Morbidity. Lung Disease. Health. Prevention.

AB This paper examines the effect of familiarity with chronic lung disease on people's willingness to forego income to reduce their risk of contracting chronic bronchitis and on their willingness to increase their risk of auto death to reduce chronic bronchitis risk. We find that persons familiar with chronic lung disease are willing to give up more income to reduce their risk of chronic bronchitis than persons with no first-hand knowledge of the disease; however, their willingness to increase their risk of auto death to reduce their risk of chronic bronchitis is no different, on average, than persons with no first-hand knowledge of lung disease. This suggests that responses to risk-risk trade-offs may be more stable than responses to risk-income choices.

TI Emissions Trading in the Electric Utility Industry. **AU** Bohi, Douglas R.; Burtraw, Dallas; Krupnick, Alan J.; Stalon, Charles G.

Kydland, Finn E.

TI The Gold Standard as a Rule. **AU** Bordo, Michael D.; Kydland, Finn E.

Laidler, David E. W.

PD August 1990. **TI** Was Wicksell a Quantity Theorist? **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9009; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 40. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** B13. **KW** Inflation. Interest Rates. Economic Thought.

AB Three readily accessible accounts by Wicksell of his monetary thought are available in English. Of these, two are comprehensive, namely "Interest and Prices" (1898, tr. 1936) and "Lectures on Political Economy Vol. II" (1906, revised ed. 1915 tr. 1935), and form the major sources for this essay. The two works differ in that the earlier one is a monograph largely devoted to setting out Wicksell's own ideas, while the latter expounds those ideas in the course of a more general survey of monetary economics. The fact that the analysis of "Interest and Prices" is more detailed and precise than that of the later work is surely explained by this fact, for there is no essential difference between the theoretical content of the two books. When it comes to claims about the empirical relevance of that theoretical content, however, those made in the "Lectures" are a

little more modest, and, I shall argue, some at least of the ambiguity of Wicksell's attitude to the Quantity Theory stems from this shift in his views about its empirical content. In 1915 he was more favorably disposed to that doctrine than he had been in 1898.

Lal, Deepak

PD October 1989. **TI** The Migration of Money - From a Libertarian Viewpoint. **AA** University College London. **SR** University College London Discussion Paper: 90-07; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 38. **PR** 2.00 pounds. **JE** B25, P16, F30. **KW** Currency. Libertarian. International Finance.

AB The paper sets out the ethical viewpoint which underlies libertarianism, and draws the implications for policy on the international migration of money.

PD February 1990. **TI** Alternative Roads to Economic Integration. **AA** University College London. **SR** University College London Discussion Paper: 90-06; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 28. **PR** 2.00 pounds. **JE** F33, F15. **KW** Monetary Integration. Currency. Europe. European Monetary Union.

AB The paper outlines the two alternative visions (evolutionary and constructivist) underlying plans for European monetary integration, and puts the case for currency competition as the most likely to lead to integration with monetary stability.

PD May 1990. **TI** Growth Collapses, Real Exchange Rate Misalignments and Exchange Rate Policy in 21 Developing Countries. **AA** University College London. **SR** University College London Discussion Paper: 90-09; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 31. **PR** 2.00 pounds. **JE** O57, O19, E63. **KW** Developing Countries. Economic Growth. Exchange Rates.

AB The paper identifies the causes of growth collapses in a sample of 21 countries forming part of a World Bank comparative study of poverty and growth in developing countries. It identifies the approximate cause for the collapses in unsustainable fiscal deficits leading to inflation and exchange rate misalignment. The paper also outlines the reasons for the fragility of predictions about necessary movements in real exchange rates, and advocates automatic exchange rate regimes - floating or of the currency board form.

PD September 1990. **TI** The Economic Impact of Hindu Revivalism. **AA** University College London. **SR** University College London Discussion Paper: 90-15; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 35. **PR** 2.00 pounds. **JE** O53, O11. **KW** Economic Policy. India. Economic Development.

AB The paper argues that there has been no distinctive impact of Hindu fundamentalism on Indian economic policy, apart from the protection of village and small scale industries advocated by Gandhi. Beginning with an outline of Gandhi's attempt to resurrect the old ancient Hindu equilibrium based on autarky village communities, and the reasons why it failed, the paper traces the changing, vague and incoherent economic policies advocated by the major fundamentalist Hindu party, the Jan Sangh (now the BJP). It argues that economics has been

secondary to its aim of establishing a Hindu nation state.

PD October 1990. **TI** Comparative Studies. **AA** University College London. **SR** University College London Discussion Paper: 90-14; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 21. **PR** 2.00 pounds. **JE** B41, B25, N01. **KW** Methodology. Economic History. Developing Countries.

AB Paper describes the common method termed analytical economic history used in the various comparative studies of developing countries. It then examines the underlying philosophical justifications of the forensic method underlying analytical economic history.

Landesmann, Michael

PD December 1989. **TI** Social Corporatism and Long-Term Economic Performance. **AU** Landesmann, Michael; Vartiainen, Juhana. **AA** Landesmann: University of Cambridge. Vartiainen; University of Helsinki. **SR** University of Cambridge DAE Working Paper: 9010; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 34. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** L11, L16, O12. **KW** Social Corporatism. Economic Performance. Austria. Sweden. Norway. Finland. Corporations.

AB In this paper the attention which corporatist structures have attracted in recent economic literature is shifted away from short-run macroeconomic issues towards the implications of social corporatism for longer-term economic performance. In particular, the way in which social corporatist institutions affect productivity growth, investment activity and industrial structural change are examined both theoretically and historically with respect to the experiences of Norway, Sweden, Finland and Austria.

PD April 1990. **TI** Industrial Policies and Social Corporatism. **AA** University of Cambridge. **SR** University of Cambridge DAE Working Paper: 9009; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 45. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** L11, L52, P26, P27. **KW** Industrial Policies. Social Corporatism.

AB This paper discusses the relationship between industrial policies and "social corporatism". "Social Corporatism" can be defined as the tripartite (business, labor and the state) institutionalized involvement in the formulation and execution of economic and social policies. The group of Scandinavian countries (Sweden, Norway, Finland) and Austria have been singled out as representing the most developed forms of corporatist arrangements of that type at the present time and this paper sets out to examine the experience of these economies vis-a-vis the success or failure of the industrial (or structural) policies pursued in these economies, particularly over the 1970s and the 1980s.

PD May 1990. **TI** Structural Shifts in the Manufacturing Export Performance of OECD Economies. **AU** Landesmann, Michael; Snell, Andrew. **AA** Landesmann: University of Cambridge. Snell: University of Edinburgh. **SR** University of Cambridge DAE Working Paper: 9011; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM.

PG 38. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** O57, L60, F14. **KW** Structural Shifts. Manufacturing. Exports. OECD. International Trade. Economic Growth.

AB This paper identifies structural shifts in manufacturing export performance of the major OECD economies. The particular emphasis of this study is to see whether the longer run responses of a country's exports to the growth in world demand have undergone trend changes. The econometric work focuses on the time variation in income elasticities from an export demand model over the period 1963-1988. It covers thus a period in which there was a substantial slow down in world economic growth and in which the manufacturing sectors in advanced economies underwent substantial restructuring in the wake of the two oil price shocks and the competitive challenges of Japan and NICs. The exercise attempted to evaluate the relative successes and failures of the different OECD economies to maintain or improve their positions in the "higher quality" (income elastic) segments of world trade.

Lapham, Beverly J.

PD September 1990. **TI** A Dynamic, General Equilibrium Analysis of Deviations from the Laws of One Price. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 793; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 35. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** F11, F14, F31, F41. **KW** Price Discrimination. Purchasing Power Parity.

AB There are at least two versions of the Law of One Price under the assumptions of perfect competition, no trade barriers, and no transport costs. One version predicts equal prices of competing goods sold in the same country and manufactured by producers located in different countries. Another version predicts equal prices of a good manufactured by a single producer and sold in different countries when prices are converted to a common currency. Empirical studies suggest persistent, time-varying deviations from both versions of the Law of One Price. This paper explores a stochastic, dynamic, general equilibrium theoretical economy with explicitly strategic price setting behavior. The equilibrium processes generated by the economy exhibit properties which are generally consistent with persistent, time-varying deviations from the Laws of One Price.

PD November 1990. **TI** An Empirical Examination of Deviations from the Laws of One Price using West German Data. **AA** Queen's University. **SR** Queen's Institute for Economic Research Discussion Paper: 797; Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 35. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** E31, F01, F31, F14. **KW** Purchasing Power Parity. Prices. Price Index.

AB Monthly West German producer, export, and import price indices are examined to investigate relationships among international prices. The data provides evidence of highly persistent time-varying deviations in the Law of One Price both across countries by a single producer and within a country by different international producers. The size and persistence of the deviations exhibits considerable variation across the industries studied. The time-varying deviations documented in this work appear to be much larger than what can be explained by variable tariffs and transport costs. Given the persistence of deviations, it is argued that theoretical models which seek to

explain properties of international price data must be inherently dynamic.

Laroque, Guy

TI On the Behavior of Commodity Prices. **AU** Deaton, Angus; Laroque, Guy.

Layard, Richard

PD November 1989. **TI** European Unemployment: Cause and Cure. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 368; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 32. **PR** no charge. **JE** J64, J65, J53. **KW** Unemployment. Europe. Unemployment Benefits. Collective Bargaining.

AB EEC unemployment is still 9 1/2 percent and has fallen little. EFTA unemployment is around 3%, U.S. 5% and Japan 2%. To explain how these differences have come about, the paper develops a general unemployment equation. This involves demand and import price shocks, as well as institutional variables. We provide a mass of information on labor market institutions, and from it confirm the key role of benefit systems, labor market policies and wage bargaining arrangements. The policy conclusion is that immediate efforts should be devoted towards establishing the "employment principle" as it is practiced in Sweden. This means shifting from passive income support of the unemployed to positive help to sustain their employability.

TI Labor-Market Mismatch: A Framework for Thought. **AU** Jackman, Richard; Layard, Richard; Savouri, Savvas.

PD May 1990. **TI** Wage Bargaining and Incomes Policy: Possible Lessons for Eastern Europe. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 2; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 58. **PR** no charge. **JE** E24, E31, O11, O52. **KW** Wages. Inflation. Unemployment. Europe.

AB In Eastern Europe (as in Western) wages will be mainly set by collective bargaining. The bargains are likely to be at the level of the firm. Cross-country evidence suggests that where there is a high coverage of collective bargaining and bargaining is at firm level, quite high unemployment is needed to restrain inflation. Rigid norms for wage growth cannot last indefinitely, though they can help for a shortish time during a disinflation. Tax-based incomes policy, however, can offer a permanent source of downward pressure on nominal wages, while permitting enough flexibility to preserve efficiency. There should be a uniform norm (unrelated to the circumstances of the enterprise). The norm should relate to average hourly earnings (or earnings per worker), and not to the total wage bill (WN). The latter would discourage structural adjustment.

TI Economic Change in Poland. **AU** Blanchard, Olivier Jean; Layard, Richard.

PD May 1990. **TI** Understanding Unemployment. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 4; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 26. **PR** no charge. **JE** E24, E31, J68,

J64. **KW** Unemployment. Inflation. Wages.

AB This lecture provides a general framework for analyzing unemployment. For inflation to be stable, there must be sufficient unemployment to prevent "target real wages" exceeding "feasible real wages". Target real wages depend on bargaining systems, benefit systems, labor market policies and mismatch. This framework explains inter-country differences in unemployment rates and British time series. The Restart Programme has helped in a major way to reduce British unemployment. Long-term unemployment is an almost total economic waste since it does little to reduce target real wages. It also imposes major external costs on British taxpayers since long-term unemployed people are so unlikely to become re-employed. Britain should adopt the Swedish "employment principle" and the labor market policies that go with it.

Lazear, Edward P.

PD December 1990. **TI** The Job as a Concept. **AA** Stanford University and University of Chicago. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-24; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 34. **PR** not available. **JE** 823, 824, 812. **KW** Labor Mobility. Wages. Promotions. Occupation. Labor Turnover.

AB The notion of a "job" is standard in business, but is absent from most economic analysis. First, the various definitions of jobs are discussed. Second, using a data set derived from a major American corporation, a number of internal labor market issues are explored. It is found that job change is the key to wage growth. Individuals who do not change jobs within the firm do not experience wage growth. But job changers are different from job stayers, and these differences are frequently observed before they begin their first job. Additionally, within firm turnover patterns are similar to between firm turnover patterns. Most internal job switching occurs during the first few years on the job. Finally, there are no strict ports-of-entry. Hiring from the outside occurs in most jobs, even very high level ones.

Lee, John H. H.

TI Time Stationarity of Systematic Risk: Some Australian Evidence. **AU** Faff, Robert W.; Lee, John H. H.; Fry, Timothy R. L.

Lee, Lung-Fei

PD September 1990. **TI** On Efficiency of Methods of Simulated Moments and Maximum Simulated Likelihood Estimation of Discrete Response Models. **AA** University of Minnesota. **SR** University of Minnesota Center for Economic Research Discussion Paper: 260; Department of Economics, 1035 Management and Economics, University of Minnesota, 271 19th Ave. So., Minneapolis, MN 55455. **PG** 42. **PR** free. **JE** 211, 132. **KW** Method of Moments. Discrete Choice Models. Parameter Estimation. Asymptotic Theory. Efficiency. Monte Carlo.

AB This article has considered methods of simulated moments for estimation of discrete response models. We have introduced a modified method of simulated moments of McFadden (1989). Using the same number of Monte Carlo draws as in McFadden's method of simulated moments, our estimator is asymptotically efficient relative to McFadden's estimator. In addition to the method of simulated moments, we

have considered also maximum simulated likelihood estimation methods. The estimators are shown to be consistent and asymptotically normal without an excessive number of Monte Carlo draws.

TI Discrete/Continuous Models of Consumer Demand with Binding Non-Negativity Constraints. **AU** Chiang, Jeongwen; Lee, Lung-Fei.

Lemieux, Thomas

TI The Effects of International Competition on Collective Bargaining Outcomes: A Comparison of the United States and Canada. **AU** Abowd, John M.; Lemieux, Thomas.

TI An Empirical Model of Labor Supply in the Underground Economy. **AU** Fortin, Bernard; Lemieux, Thomas; Frechette, Pierre.

Levaggi, Rosella

TI Simulating Local Government Expenditure Decisions and Welfare Changes under a Community Charge (Poll Tax) Regime. **AU** Barnett, Richard R.; Levaggi, Rosella; Smith, Peter.

Levi-Mazloum, Daniel

PD September 1990. **TI** To Patent or to Publish. **AU** Levi-Mazloum, Daniel; von Ungern-Sternberg, Thomas. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9016; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 7. **PR** no charge. **JE** 621, 616. **KW** Publication. R&D. Patents. Innovations.

AB Most theoretical models of R&D assume that the successful innovator will patent his invention. In practice this is not the case. Innovators often find it preferable to publish their inventions to preclude patenting by somebody else, without actually going to the effort of obtaining a patent themselves. The purpose of this paper is to study the incentives to proceed in this fashion. The paper is of interest because it sheds some light on the kinds of biases one may find in data on patenting activity. It also raises the interesting question of how economists should go about defining at what point information can be said to be "in the public domain".

Lewis, Karen K.

PD July 1990. **TI** Why Doesn't Society Minimize Central Bank Secrecy? **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3397; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 25. **PR** \$2.00. **JE** E58, E52. **KW** Central Bank. Monetary Policy.

AB Societies have incentives to design institutions that allow central bank secrecy. This paper illustrates these incentives in two ways. First, if society tries to constrain secrecy in one way, central bankers will try to regain lost effectiveness by building up secrecy in other ways. Therefore, we may wind up accepting types of secrecy that appear preventable because reducing them would lead to higher costs. Second, if the social trade-offs between policy objectives change over time, the public may directly prefer greater central bank secrecy so that it will be surprised with expansionary policies when it most desires them.

PD July 1990. **TI** Occasional Interventions to Target Rates with a Foreign Exchange Application. **AA** National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3398; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 32. **PR** \$2.00. **JE** F31, E58, E37. **KW** Central Bank. Exchange Rates.

AB This paper develops a framework for analyzing the effects upon rates when occasional central bank interventions try to keep rates near target levels. Interestingly, the threat of capital gains or losses induced by this stochastic intervention policy helps contain rates within implicit boundaries around the target level. More importantly, this intervention policy concentrates observations of the exchange rate around the target level and away from the implicit bands. In Monte Carlo simulation, sufficiently tight distributions for intervention around the target level imply that the bands are never reached in practice. As an application, the model is empirically evaluated using exchange rate and intervention observations following the 1987 Louvre accord.

TI Do Risk Premia Explain It All? Evidence from the Term Structure. **AU** Evans, Martin D. D.; Lewis, Karen K.

Lewis, Tracy R.

PD August 1990. **TI** Selecting an Agent's Ability. **AU** Lewis, Tracy R.; Sappington, David E. M. **AA** Lewis: University of California, Davis. Sappington: University of Florida and Bellcore. **SR** University of California at Davis Economics Department Working Paper: 365; Department of Economics, University of California at Davis, Davis, California 95616-8578. **PG** 30. **PR** no charge. **JE** C70, D82. **KW** Investment. Commitment. Principal-Agent Theory.

AB We extended standard adverse selection models by making the agent's ability level endogenous. Higher levels of ability make lower realizations of the agent's privately observed cost more likely. We show that when she is able to commit to an incentive scheme before the agent chooses his ability, the principal will induce more (less) ability from the agent when the agent's primary ex post incentive is to exaggerate (understate) this private information. Thus, the principal may prefer agents of either higher or lower ability. A class of examples is also presented in which both the principal and agent prefer that the principal moves first.

PD November 1990. **TI** Conservation and Incentive Regulation. **AU** Lewis, Tracy R.; Sappington, David E. M. **AA** Lewis: University of California at Davis. Sappington: Bellcore and University of Florida. **SR** University of California at Davis Economics Department Working Paper: 369; Department of Economics, University of California at Davis, Davis, California 95616-8578. **PG** 31. **PR** no charge. **JE** Q48, Q41. **KW** Conservation. Environment. Regulation. Asymmetric Information. Energy.

AB We examine the design of regulatory policy to foster energy conservation by an energy producer. The producer has private information about the net benefits of its conservation efforts. The ideal outcome for consumers can be ensured if the firm's conservation efforts are observable, even if the effects of these efforts cannot be monitored accurately. More generally, the ideal outcome is not feasible. Prices below marginal production costs may be optimal to induce the firm to increase conservation efforts.

Liang, J. Nellie

PD December 1990. **TI** Equity Underwriting Risk. **AU** Liang, J. Nellie; 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: 146; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 39. **PR** no charge. **JE** 313, 314, 522, 521. **KW** Initial Public Offerings. Corporate Equity. Banks.

AB The risk associated with Firm-commitment underwritings of corporate equities is examined from two perspectives. First, in an extension of Giddy (1985), underwriting risk is examined as the risk associated with setting an offer price given uncertainty about the market price of the issue. Second, equity underwriting risk is reformulated as return uncertainty over time and measured as a time series variance of dollar returns from equity underwriting. We find strong evidence that underpricing and underwriter spreads are sensitive to price risk which enable underwriters to translate substantial price uncertainty into small risk of loss. These results raise doubts about the importance of risk-bearing as a motive for firm commitment underwritings.

TI Inferring Market Power from Time Series Data: The Case of the Banking Firm. **AU** Hannan, Timothy H.; Liang, J. Nellie.

Libecap, Gary D.

TI Patronage to Merit: Political Change in the Federal Government Labor Force. **AU** Johnson, Ronald L.; Libecap, Gary D.

PD October 1990. **TI** The First Federal Consumer Quality Guarantees and the Origins of Antitrust. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-29; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 41. **PR** no charge. **JE** N61, K21, L41. **KW** Antitrust Law. Competition. Food Processing. Legislature.

AB This paper provides new information on the origins of the Federal Meat Inspection Acts of 1890 and 1891 and of the Sherman Antitrust Act of 1890. Analysis of overlapping congressional debates and committee reports on the Meat Inspection Acts of 1890 and 1891, and the 1890 Sherman Act reveals that cattle raisers were leading proponents of the three laws. Falling cattle prices (the most severe drop in the post civil war period) led cattle raisers to lobby congress for inspection legislation to promote export and domestic demand and for an antitrust law to constrain the perceived oligopsony power of the Chicago meat packers. This point has been missed in the literature, and it adds to the debate as to whether the Sherman Act was designed principally to promote competition or to limit competition and protect special interests.

PD October 1990. **TI** From Private Property to Government Ownership: Federal Land Policy and the General Revision Act. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-28; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 25. **PR** no charge. **JE** N51, Q15, R14. **KW** Property Rights. Land Policy. Land Use.

AB This paper examines the shift in U.S. land policy in the nineteenth century from divestiture to retention. The reversal began with the General Revision Act of 1891. The reasons behind the law and the impact on property rights and land use

are examined.

PD October 1990. **TI** Property Rights and Economic Development. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-27; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 23. **PR** no charge. **JE** O12, D23, N11. **KW** Property Rights. Economic Development. Entrepreneurs. Economic Growth.

AB This paper examines the role property rights play in promoting economic development. It argues that the key to understanding why economic growth has been limited both historically and currently lies in the institutional structure that frames incentives for economic decisions. Entrepreneurs are essential for economic growth. These are the individuals who assume risks in developing new markets, new products, new ways of doing things, and new trading possibilities. Through their actions entrepreneurs can promote production and trade and hence, the overall wealth of the society. But entrepreneurial behavior requires reasonably well defined and enforced property rights to provide exclusive decision making authority over valuable resources and to insure that entrepreneurs capture the net returns of their decisions.

TI Institutional Choice and the Development of U.S. Agricultural Policies in the 1920s. **AU** Hoffman, Elizabeth; Libecap, Gary D.

Liebermann, Marvin B.

PD September 1990. **TI** Determinants of Vertical Integration: An Empirical Test. **AA** Stanford University and University of California, Los Angeles. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-21/9; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 18. **PR** not available. **JE** 611, 631. **KW** Vertical Integration. Transaction Costs. Firm Theory. Product Demand.

AB This paper tests models of vertical integration, with emphasis on incentives that arise given transactions costs and demand variability. The tests are based on a logit analysis of firms' backward integration choices in a sample of 34 chemical products. The results are consistent with recent transactions cost theories and the demand variability model proposed by Carlton (1979).

Lim, Joseph

PD February 1990. **TI** IPOS and Venture Capitalists: A Test of the Dynamic Strategy Hypothes. **AU** Lim, Joseph; Saunders, Anthony. **AA** New York University. **SR** New York University Salomon Brothers Center Working Paper: S-90-12; 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** 63. **PR** not available. **JE** 521, 522, 313. **KW** Public Offering. Capitalist. Capital Markets. Business Finance. Corporate Shares.

AB Initial public offerings (IPOs) play an important role in the American capital formation process. For the firm, the opportunity to go public and having its shares traded represents an important addition to its menu of available financing. For the firm's owners, a public offering means more liquidity for shares owned in the firm and the possibility of owners holding more diversified portfolios. An important participant in this capital formation process is the venture capitalist who risks his capital

and spends time monitoring and managing growing companies. While the IPO marks the beginning of an association between a firm and the outside investing public, for the venture capitalist it usually represents the culmination of a financing effort and association begun sometime earlier. This raises the question as to what is the value-added provided by the venture capital.

Lina, Song

TI The Determinants of Urban Income Inequality in China.
AU Knight, John B.; Lina, Song.

Lipsey, Robert E.

TI Foreign Firms and Export Performance in Developing Countries: Lessons from the Debt Crisis. **AU** Blomstrom, Magnus; Lipsey, Robert E.

Liu, Jin Tan

PD June 1990. **TI** Risk Communication and Attitude Change: Taiwan's National Debate over Nuclear Power. **AU** Liu, Jin Tan; Smith, V. Kerry. **AA** Liu: Academia Sinica, Taiwan. Smith: North Carolina State University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-21; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 41. **PR** \$2.25 prepaid (U.S. funds only). **JE** 723, 941, 026. **KW** Nuclear Power. Attitudes. Risk. Perceptions. Expectations.

AB This paper reports the first analysis of the effects of a national risk communication program that disseminated the facts about the risks associated with nuclear power plants. It relies upon a unique set of circumstances in Taiwan. The state-operated power corporation sponsored a national debate in an effort to promote greater public consensus on the need for a fourth nuclear power plant. This analysis uses stated risk perceptions and attitudes toward the plant to evaluate the effect of the debate. The results are based on a panel of households interviewed before and after the debate. They suggest that the debate did not reduce respondents' perceived risks from nuclear power and had little perceptible effect on the attitude changes of our sample.

Locke, Wade

PD October 1990. **TI** Property Tax Distortion as an Explanation of the Flypaper Effect. **AA** Memorial University of Newfoundland. **SR** Queen's John Deutsch Institute Discussion Paper: 11; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 42. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** H71, D72, H72. **KW** Property Taxes. Government Expenditures. Local Governments.

AB This paper investigates how local government behavior is altered when property taxes are permitted to distort both the median voter's housing consumption decision and the spatial location of firms. It is demonstrated that optimizing politicians, in the presence of either or both of these property tax distortions, will, contrary to the predictions of standard median voter models, respond asymmetrically to increases in own resources and increases in intergovernmental lump-sum aid. Moreover, the model predicts that property tax distortions will cause the local politicians to allocate more of the increase in aid to public sector expenditure than it would for an equivalent increase in income. That is, the theoretical model offers an

explanation of the so-called "flypaper effect" which is contingent upon neither the coercive power of the bureaucracy nor the mistakes of the pivotal voter.

Lockwood, Ben

PD 1989. **TI** Tax Incidence, Market Power, and Bargaining Structure. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 10/89; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 37. **PR** not available. **JE** 021, 022, 323. **KW** Imperfect Competition. Unions. Taxes. Market Power. General Equilibrium Model.

AB This paper considers the incidence of both factor taxes and an income/consumption tax in a general equilibrium model with unionized labor markets and imperfectly competitive product markets, focusing especially on the implications of different bargaining structures in the labor market for tax incidence. The determinants of tax incidence are shown to be very different from the competitive case; in particular, more than 100% shifting of general, as opposed to sector specific wage and income/consumption taxes is possible, and the shifting of the wage tax generally increases, rather than decreases, with the elasticity of substitution between labor and capital in production. Also, changes in firm market power and union bargaining power are shown to have counterintuitive effects on the degree of shifting of taxes.

TI Trade Unions, Non-Binding Wage Agreements, and Capital Accumulation. **AU** Devereux, Michael B.; Lockwood, Ben.

Long, Douglas

PD March 1990. **TI** Taking Interests Seriously. **AA** University of Western Ontario. **SR** University of Western Ontario Papers in Political Economy: 5; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 33. **PR** no charge. **JE** B11, B12. **KW** Economic Thought.

AB As bases for theories of political and moral life, "virtue" and "right" have far longer pedigrees than "interest". At the beginning of the "Western Tradition" the classical political philosophers built the polis on the basis of wisdom, truth and goodness (Plato), or of reason and nature (Aristotle). Stoic "self-command", Epicurean pleasure, Ciceronian "ius" or "lex": all these were foundations for analyses of human action and political organization which situated these activities in a context fundamentally unlike that of interest-based modern theorizing. For theirs was the context constituted by natural law and natural right; a cosmological order which humankind had not made, but within which they must find their place. I shall argue that it was precisely when, and insofar as, faith in the existence of such an order was shaken and then abandoned that "interest" was adopted as a central organizing concept in social and political theory.

Ludema, Rodney D.

PD December 1990. **TI** Optimal International Trade Agreements and Dispute Settlement Procedures. **AA** University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9101; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 30. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** F13. **KW** Trade Agreements. Dispute Settlements.

Renegotiation. Tariffs. Quotas.

AB An infinitely repeated tariff game is used to characterize optimal (welfare-maximizing and self-enforcing) international trade agreements under different assumptions about dispute settlement. Without dispute settlement, optimal agreements resort to autarky, if only temporarily, should a violation occur. Such agreements support free trade, for low discounting, and otherwise sustain lower tariffs than any other agreement. A dispute settlement procedure (DSP) restricts the set of possible agreements to those which are renegotiation-proof, as in Pearce (1987). A DSP-constrained optimal agreement never supports free trade and results in higher tariffs than the no DSP case. Finally, optimal tariff agreements are shown to give higher welfare than optimal quota agreements.

Lumsdaine, Robin L.

PD May 1990. **TI** Efficient Windows and Labor Force Reduction. **AU** Lumsdaine, Robin L.; Stock, James H.; Wise, David A. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 3369; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 31. **PR** \$2.00. **JE** J21, J32. **KW** Retirement. Pensions. Labor Force. Promotion.

AB Recently many U.S. firms have offered "window" plans that provide bonuses to a group of workers if the worker retires within a specified short time span. This paper examines a window plan at a fortune 500 firm, and addresses two main issues. First, what was the effect of the window plan on departures? Second, assuming a variety of possible firm objectives, what would be the design of an efficient window plan? These questions are addressed using the retirement model in Stock and Wise [1988a, 1988b]. The model, estimated using data for an earlier year, predicts well out-of-sample the subsequent large increase in retirements under the window plan. We find that while the firm successfully maximized departures, if its goal was to minimize either expected future wage payments or the current cost per induced retirement, the firm could have saved more with efficient plans constructed using the model.

PD August 1990. **TI** Aging and Labor Force Participation: A Review of Trends and Explanations. **AU** Lumsdaine, Robin L.; Wise, David A. **AA** Harvard University. **SR** National Bureau of Economic Research Working Paper: 3420; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 69. **PR** \$2.00. **JE** 826, 918, 841, 915. **KW** Aging. Elderly. Labor Force. Social Security. Retirement.

AB The American population is aging rapidly. Persons 65 and over who now constitute about one-fifth of the population will constitute about two-fifths of the population by 2040. In addition, individuals are living longer. Yet the labor force participation of older Americans has fallen dramatically in recent years. This paper discusses this trend and the principal arguments put forth to explain it. The paper is in two parts. The first part reviews trends in labor force participation and associated trends in Social Security (SS) coverage, firm pension plan coverage, and other factors that are likely to be associated with the labor force participation trends, including demographics. The second part of the paper discusses the incentive effects of SS and retirement plans, with emphasis on firm pension plans.

Lusardi, Annamaria

PD October 1990. **TI** Durable Goods and Varying Real Interest Rates. **AA** Princeton University. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 63; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 34. **PR** no charge. **JE** E21, L68, D12. **KW** Durable Goods. Interest Rates. Consumption. Permanent Income Hypothesis.

AB This paper examines whether the variability of the interest rates can account for the inability of the rational expectations-permanent income model to explain the wide movement of the expenditure on durables. A specific procedure for calculating the Euler equations when interest rates are varying is developed and empirical predictions are derived for both the stock and flow of durables. The empirical estimation of the model using an instrumental variables procedure rejects the permanent income hypothesis. Contrary to the theory, lagged variables are able to predict the growth in the stock and expenditures on durables and the finding and interpretation of a low rate of intertemporal substitution is shown to be questionable.

Maccini, Louis J.

TI The Resurgence of Inventory Research: What Have We Learned? **AU** Blinder, Alan S.; Maccini, Louis J.

Machado, Jose A. F.

TI Estimation of Systematic Risk using Bayesian Analysis with Hierarchical and Non-Normal Priors. **AU** Bera, Anil K.; Machado, Jose A. F.

Machin, Steve

PD January 1990. **TI** Testing Dynamic Models of Worker Effort. **AU** Machin, Steve; Manning, Alan. **AA** Machin: University College London. Manning: London School of Economics. **SR** University College London Discussion Paper: 90-10; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 22. **PR** 2.00 pounds. **JE** J41, J53. **KW** Efficiency Wages. Collective Bargaining. Dynamic Models.

AB This paper derives three dynamic models of worker effort determination, based on a shirking efficiency wage model, a compensating differentials model, and a union-firm bargaining model. It shows that all three models have the same long-run comparative statics but that they differ in their short-run dynamics. We use these different predictions about the dynamics as a basis for testing the models. Euler equations for each model are estimated using panel data on 491 U.K. companies. The evidence is not consistent with the shirking efficiency wage model and seems most consistent with the bargaining model.

Machina, Mark J.

PD July 1990. **TI** A More Robust Definition of Subjective Probability. **AU** Machina, Mark J.; Shmeidler, David. **AA** Machina: University of California, San Diego. Shmeidler: Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 15-90; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv ISRAEL. **PG** 66. **PR** no charge. **JE** 026, 022. **KW** Lotteries. Preferences. Subjective Probability. Expected Utility.

AB Although their goal is to separate a decision maker's underlying beliefs (their subjective probabilities of events) from their preferences (their attitudes toward risk), classic choice-theoretic derivations of subjective probability all rely upon some form of the Marschak-Samuelson "Independence Axiom" or the savage "Sure-Thing Principle," which is equivalent to requiring that the decision maker's preferences over lotteries conform to the expected utility hypothesis. This paper presents a choice-theoretic derivation of subjective probability which satisfies the axioms of classical probability theory, but which neither assumes nor implies that the decision maker's preferences over lotteries necessarily conform to the expected utility hypothesis.

MaCurdy, Thomas

TI Unemployment Compensation and Episodes of Nonemployment. **AU** Gritz, R. Mark; MaCurdy, Thomas.

Maki, Atsushi

PD June 1990. **TI** An Empirical Test of Homogeneity and Symmetry in a Demand System with Taste Changes. **AA** Keio University and Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 214; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 20. **PR** not available. **JE** 226, 122, 132. **KW** Economic Growth. Japan. Consumption. Demand Function. Utility Theory.

AB The objectives of this paper are two-fold: to examine the law of demand and to examine the possibility of changing demand empirically in the high economic growth era of the Japanese economy. The homogeneity and symmetry conditions of the Slutsky equation are important in testing the correspondence between demand functions and utility functions. In this paper these restrictions are tested. It is found that homogeneity, symmetry, and the joint restrictions of homogeneity and symmetry, are satisfied when taste changes are introduced. In Japan, the period of observation includes the era of high economic growth during the 1960s and is thus an especially appropriate period for observing a dynamic shift in consumption patterns.

Manelli, Alejandro M.

TI Sequential Equilibria and Cheap Talk in Infinite Signaling Games. **AU** Iorio, Karl; Manelli, Alejandro M.

Mankiw, N. Gregory

PD June 1990. **TI** Should the Fed Smooth Interest Rates? The Case of Seasonal Monetary Policy. **AU** Mankiw, N. Gregory; Miron, Jeffery A. **AA** Mankiw: Harvard University. Miron: Boston University. **SR** National Bureau of Economic Research Working Paper: 3388; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 33. **PR** \$2.00. **JE** E52, E58, E32. **KW** Monetary Policy. Federal Reserve. Interest Rates. Seasonality. Economic Fluctuations.

AB This paper examines the choice of monetary policy in response to seasonal fluctuations in the economy. It discusses the costs and benefits of smoothing interest rates over the seasons, which has been the Fed's policy since its founding in 1914, and presents simulations suggesting how the economy would behave under the alternative policy of stabilizing the money stock. Finally, it presents evidence that the smoothing of

interest rates in 1914 changed the seasonal business cycle.

PD July 1990. **TI** The Consumption of Stockholders and Non-Stockholders. **AU** Mankiw, N. Gregory; Zeldes, Stephen P. **AA** Mankiw: Harvard University. Zeldes: University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 3402; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 26. **PR** \$2.00. **JE** E21, D12, G12. **KW** Consumption. Asset Pricing Model. Stock Market. Households. Consumer Economics.

AB Only one-fourth of U.S. families own stock. This paper examines whether the consumption of stockholders differs from the consumption of non-stockholders and whether these differences help explain the empirical failures of the consumption-based CAPM. Household panel data are used to construct time series on the consumption of each group. The results indicate that the consumption of stockholders is more volatile than that of non-stockholders and is more highly correlated with the excess return on the stock market. These differences help explain the size of the equity premium, although they do not fully resolve the equity premium puzzle.

Manning, Alan

TI Testing Dynamic Models of Worker Effort. **AU** Machin, Steve; Manning, Alan.

Marchand, Maurice

TI The Use of Public Expenditures for Distributive Purposes. **AU** Boadway, Robin W.; Marchand, Maurice.

Marini, Giancarlo

PD May 1990. **TI** Expected Inflation and Output Variability in Contracting and Flexible Price Models. **AU** Marini, Giancarlo; Scaramozzino, Pasquale. **AA** Marini: Universita di Bari and Universita di Roma. Scaramozzino: University College London. **SR** University College London Discussion Paper: 90-08; Department of Economics, University College London, Gower Street, London, WC1E 6BT, ENGLAND. **PG** 24. **PR** 2.00 pounds. **JE** E23, E24, E31. **KW** Inflation. Expectations. Output. Overlapping Contracts.

AB This paper presents analytical results supporting the view that increases in wage flexibility may exacerbate the variability of real output. The framework considered is a variant of Fischer's rational expectations model with overlapping wage contracts. It is also proved that the instability outcome due to the expected inflation effect can be present even in new classical models with fully flexible prices.

Marquart, Deanna

PD April 1990. **TI** Reapportionment Reconsidered. **AU** Marquart, Deanna; Harrington, Winston. **AA** Marquart: Marquart Policy Analysis Inc. Harrington: Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-16; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 13. **PR** \$2.25 prepaid (U.S. funds only). **JE** 731, 025. **KW** Reapportionment. Congress. Legislature.

AB Every ten years, in all but the least populous state, political blood by the quart is spilt over the issue of Congressional reapportionment. In this paper the authors

propose a system of electing representatives that avoids this strife: end the geographical definition of Congressional districts. In its place they suggest alternatives that may offer some other advantages as well.

Marston, Richard C.

PD May 1990. **TI** Price Behavior in Japanese and U.S. Manufacturing. **AA** University of Pennsylvania. **SR** National Bureau of Economic Research Working Paper: 3364; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$2.00. **JE** F14, L10, L21, L60. **KW** Exports. Exchange Rates. Manufacturing. Japan. United States.

AB Relative price changes in Japanese and U.S. manufacturing are driven by two forces, productivity growth which leads to secular changes in costs and exchange rate fluctuations which change relative prices between the two countries. Faced with swings in exchange rates, firms adopt defensive measures to defend their export markets. The paper presents estimates of "pricing to market" elasticities which suggest that firms lower their export prices in domestic currency relative to their domestic prices in order to limit the effects of currency appreciations. There is evidence that firms in both countries pursue such pricing strategies, but pricing to market is more extensive in Japan.

Matsushima, Hitoshi

TI Virtual Implementation in Iteratively Undominated Strategies: Complete Information. **AU** Abreu, Dilip; Matsushima, Hitoshi.

TI Virtual Implementation in Iteratively Undominated Strategies: Incomplete Information. **AU** Abreu, Dilip; Matsushima, Hitoshi.

Mattei, Aurelio

PD November 1990. **TI** Political and Economic Power: Switzerland and Europe. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9017; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 21. **PR** no charge. **JE** 123, 225, 423. **KW** Political Power. Voting Systems. Political Integration. Economic Integration. European Community.

AB This paper analyzes the political and the economic power of the Swiss cantons, the European Community (EC) members and the members of future EC plus European Free Trade Area large community. The political power is calculated using the Shapley-Shubik power index. It is shown that the bicameral system of the Swiss Confederation triplicate the political power of the smallest cantons. The economic power is estimated using the regional income, the proportion of the labor force working for firms headquartered in the region, the monetary reserves and the population. The economic power can be quite different from the political power, especially between underdeveloped and developed regions. The political and the economic power of a large European community of 18 nations. Paper in French.

Mattey, Joe P.

PD December 1990. **TI** Prices by Industry-Based Stage-of-Process. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve

System Economic Activity Section Working Paper Series: 111; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 38. **PR** no charge. **JE** C43, C67, E31. **KW** Inflation. Input-Output Analysis. Price Index. Consumer Goods.

AB This paper explains how the new system of producer price indexes by industry-based stage-of-process differs from the old commodity-based system and, for each system, constructs a chain of price equations that ultimately explains monthly movements in a fixed weighted price index for personal consumption expenditures on goods. The results generally favor the new industry-based system. Although the industry-based system is not any better than the commodity-based system at predicting near-term monthly movements in retail prices of consumer goods, estimated pass through relationships for prices of goods other than food and energy are found to be more plausible in the industry-based system.

PD January 1991. **TI** The Cumulation of Individual Responses to Input Price Changes. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 113; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 56. **PR** no charge. **JE** E31, C43. **KW** Inflation. Prices. Aggregation.

AB Aggregate output prices appear to respond more slowly to changes in prices of aggregate inputs than prices in individual industries appear to respond to changes in price of individual input. This difference is caused by a "cumulation effect" if firms in individual industries actually do adjust prices relatively quickly, but the small individual lags cumulate as commodities pass through a chain of production. This paper shows that the transmission mechanism -- dynamic interactions created by industries' use of each other's commodities -- can generate a significant cumulation effect in the U.S. economy.

McAfee, R. Preston

TI Industrial Blackmail of Local Governments. **AU** King, Ian; McAfee, R. Preston; Welling, Linda.

McAleer, Michael

PD February 1990. **TI** Alternative Approaches to Testing Non-Nested Models with Autocorrelated Disturbances: An Application to Models of U.S. Unemployment. **AU** McAleer, Michael; Pesaran, M. Hashem; Bera, Anil K. **AA** McAleer: Australian National University and Tilburg University. Pesaran: University of California, Los Angeles and Trinity College, Cambridge. Bera: University of Illinois. **SR** University of Cambridge DAE Working Paper: 9013; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 22. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** C22, C14. **KW** Non-Nested Models. Nonparametric Test. Linear Regression Model. Autoregressive Process.

AB Since departure from the classical assumptions regarding the disturbances in a linear regression model arise frequently in empirical applications, several computationally straightforward procedures are presented in this paper for testing non-nested models when the disturbances of these models follow first - or higher - order autoregressive processes. An empirical example is used to illustrate how the procedures may be used to test

competing Keynesian and New Classical non-nested models of unemployment for the U.S. using annual time series data for 1955-85.

TI Discrimination Procedures for Fitting Nested and Non-Nested Distributions to Environmental Quality Data. **AU** Bai, Jun; Jakeman, Anthony J.; McAleer, Michael.

TI On the Robustness of Barro's New Classical Unemployment Model. **AU** Smith, Jeremy; McAleer, Michael.

TI Modified Rainbow Tests. **AU** Burke, S. P.; Godfrey, L. G.; McAleer, Michael.

TI Simple Procedures for Testing Autoregressive versus Moving Average Errors in Regression Models. **AU** McKenzie, C. R.; McAleer, Michael; Gill, L.

PD June 1990. **TI** A Monte Carlo Comparison of OLS, IV, FIML and Bootstrap Standard Errors in Linear Models with Generated Regressors. **AU** McAleer, Michael; Smith, Jeremy. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 207; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 69. **PR** not available. **JE** 211, 132. **KW** Linear Model. Missing Values. Monte Carlo. Covariance Matrix. Diagnostic Tests. Asymptotic Theory.

AB In this paper we examine the consistent estimation of the covariance matrix of linear models with generated regressors, that is, models with unobserved explanatory variables. A number of empirical examples are used to investigate the differences that can arise in the calculation of the standard errors using a variety of approaches: namely, the 2-step OLS method, 2-step OLS with the same and different numbers of observations in the expectations and structural equations, the 2-step instrumental variable method, full information maximum likelihood, and two variants of the computationally intensive bootstrap method. Two variable addition diagnostic tests for the structural equation with generated regressors are also presented for each model.

TI Estimation and Discrimination of Alternative Air Pollution Models. **AU** Bai, Jun; Jakeman, Anthony J.; McAleer, Michael.

McCallum, Bennett T.

PD June 1990. **TI** Money and Prices in Colonial Times: A New Test of Competing Theories. **AA** Carnegie Mellon University. **SR** National Bureau of Economic Research Working Paper: 3383; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$2.00. **JE** N21, N11. **KW** Economic History. Inflation. Quantity Theory. Currency.

AB A long-standing but unsettled controversy concerning monetary experiences in colonial America has recently been reopened with considerable vigor. Ignoring doctrinal aspects, the main substantive issue concerns the relationship between money holdings and price levels during episodes in which various colonial governments issued paper currency (bills of credit) in large amounts. In several instances, large and rapid increases in the stock of outstanding paper currency led to negligible changes in price levels. But alternative interpretations are possible, since colonial money included specie as well as paper currency. The present study develops

and applies a strategy for circumventing the unavailability of specie data by exploiting conflicting implications of the two hypotheses regarding magnitudes of real per capita holdings of paper currency, relative to normal real money balances, at dates of maximum paper issue. A major feature of the analysis is a new method for the estimation of normal real money holdings, one that relies on paper currency data for a few inflationary episodes.

McCauley, Robert N.

PD August 1989. **TI** Explaining International Differences in the Cost of Capital: The United States and United Kingdom versus Japan and Germany. **AU** McCauley, Robert N.; Zimmer, Steven A. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 8913; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 68. **PR** no charge. **JE** E22, O16, L52. **KW** Capital. Corporate Finance. Savings. Taxes. Industrial Organization.

AB This article estimates the cost of capital for corporations in the United States, Japan, Germany, and Britain in the period 1977-88 and finds that the United States and Britain labor under decided disadvantages in relation to the other two economies. The second half of this article examines potential explanations for this finding. We reject income tax structures as an important determinant of the cost of capital gap. Rather, we contend that higher household savings in Japan and Germany and more successful policies for maintaining stable growth in Japan and stable prices in Germany have opened up the gap.

McConnell, Ted

TI The Estimation of Consumer Preferences for Attributes: A Comparison of Hedonic and Discrete Choice Approaches. **AU** Cropper, Maureen L.; Deck, Leland; Kishor, Nalin; McConnell, Ted.

McKenzie, C. R.

PD June 1990. **TI** Simple Procedures for Testing Autoregressive versus Moving Average Errors in Regression Models. **AU** McKenzie, C. R.; McAleer, Michael; Gill, L. **AA** McKenzie: Osaka University. McAleer: Australian National University. Gill: University of Manchester. **SR** Australian National University Working Paper in Economics and Econometrics: 210; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 36. **PR** not available. **JE** 211. **KW** Autoregressive Model. LM Test. Moving Average Model. Asymptotic Theory. Maximum Likelihood.

AB The purpose of this paper is to develop several simple separate (or non-nested) procedures for testing autoregressive versus moving average errors in regression models. These asymptotically valid tests are straightforward to calculate: after estimating both models by maximum likelihood methods, the procedure involves testing the significance of variables added to a linearized version of the null model, the added variables being the predictions, or the residuals from the specified alternative model, or the difference of the predictions of the two models. Bahadur's asymptotic relative efficiency measure is used to compare the performance of the various tests developed in the paper against each other, as well as against procedures based upon testing either model against the more general autoregressive-moving average model in which they are both nested.

McLaren, Keith R.

PD May 1990. **TI** A Reappraisal of the Neoclassical Approach to Modelling Business Investment. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 5/90; Monash University. Clayton, Victoria 3168, Australia. **PG** 21. **PR** no charge. **JE** 522, 023. **KW** Investment Model. Adjustment Costs. Tobins's Q-Theory. Business Investment.

AB Empirical studies of investment behavior are typically based on the three models of investment available in the literature: the Jorgenson neoclassical model, the adjustment cost model, and Tobin's q-theory. A case is put for a reappraisal of the empirical implementation of these models.

Meghir, Costas

PD October 1988. **TI** Female Participation and Male Unemployment Duration in Greece: Evidence from the Labour Force Survey. **AU** Meghir, Costas; Ioannides, Yannis; Pissarides, Chris. **AA** Meghir: University College London. Ioannides: Virginia Polytechnic Institute and State University. Pissarides: London School of Economics. **SR** University College London Discussion Paper: 88-20; Department of Economics, University College London, Gower Street, London WC1E 6BT, UNITED KINGDOM. **PG** not available. **PR** 1.50 pounds. **JE** 824, 813, 821. **KW** Unemployment Duration. Labor Force Participation. Unemployment. Labor Market.

AB This paper uses the Greek Labor Force Survey of 1981 to analyze the determinants of female labor force participation and female hours of work. We find strong education and age effects as well as evidence of complementarity between male and female time. Moreover, our empirical results reflect the institutional rigidities in the Greek labor market. We also analyze the determinants of male unemployment duration. An interesting result is that once we account for unobserved heterogeneity, there is no evidence of duration dependence.

TI Female Labor Supply and On-the-Job Search: An Empirical Model Estimated using Complimentary Data Sets. **AU** Arellano, Manuel; Meghir, Costas.

Mehta, J. S.

TI Some Problems with Identification in Parametric Models. **AU** Swamy, P. A. V. B.; Mehta, J. S.; von zur Muehlen, P.

Menkhous, Dale J.

TI Using Laboratory Experimental Auctions in Marketing Research: A Case Study of New Packaging for Fresh Beef. **AU** Hoffman, Elizabeth; Menkhous, Dale J.; Field, Ray A.; Whipple, Glen D.

Mester, Loretta J.

PD June 1990. **TI** When Does the Prime Rate Change?. **AU** Mester, Loretta J.; Saunders, Anthony. **AA** Mester: Federal Reserve Bank of Philadelphia. Saunders: New York University. **SR** New York University Salomon Brothers Center Working Paper: S-90-18; 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** 33. **PR** not available. **JE** 311, 132, 131. **KW** Interest Rates. Monetary Policy. Economic Fluctuations.

AB Although it can no longer be viewed as the rate that

commercial banks charge their best borrowers, changes in the prime still make headlines. This paper studies the frequency of changes in the prime rate. We model the prime rate as a time-series variable that can be changed only at an administrative cost. This yields a logit model in which the probability of a change in the prime rate is a function of market variables, including the inflation rate, growth in demand, and increase in input prices since the last prime rate change. We test this model using a unique data set that gives the exact dating of the prime rate changes over the 1948-88 period. The results indicate that changes in exogenous variables trigger a larger probability of an upward prime rate change than a downward prime rate respon.

Milgrom, Paul

TI Information and Timing in Repeated Partnerships. **AU** Abreu, Dilip; Milgrom, Paul; Pearce, David.

TI The Merchant Guild as a Nexus of Contracts. **AU** Greif, Avner; Milgrom, Paul; Weingast, Barry R.

Miller, Marcus

PD March 1990. **TI** Currency Bands, Target Zones, and Cash Limits: Thresholds for Monetary and Fiscal Policy. **AU** Miller, Marcus; Weller, Paul. **AA** Miller: Warwick University. Weller: Cornell University. **SR** Centre for Economic Policy Research Discussion Paper: 382; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 33. **PR** 2.00 pounds (\$4.00). **JE** 431, 432, 311, 321. **KW** Exchange Rates. Monetary Policy. Fiscal Policy.

AB Exchange rate behavior is analyzed in the context of a stochastic rational expectations model in which there are random shocks to the price setting mechanism and in which the authorities choose to impose either nominal or real exchange rate bands. Results are compared to those that emerge from a simple monetary model subject to velocity shocks. The effects of a realignment of the band, and of fiscal policy used in conjunction with monetary policy to defend the band, are also examined.

Milne, Frank

TI The Arbitrage Pricing Theorem with Non Expected Utility Preferences. **AU** Kelsey, David; Milne, Frank.

Miron, Jeffery A.

TI Should the Fed Smooth Interest Rates? The Case of Seasonal Monetary Policy. **AU** Mankiw, N. Gregory; Miron, Jeffery A.

Mishkin, Frederic S.

PD July 1990. **TI** Asymmetric Information and Financial Crises: A Historical Perspective. **AA** Columbia University. **SR** National Bureau of Economic Research Working Paper: 3400; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 38. **PR** \$2.00. **JE** N21, N22, E65, E32. **KW** Financial Crisis. Business Cycle. Asymmetric Information.

AB This paper examines the nature of financial crises from a historical perspective using the new and burgeoning literature on asymmetric information and financial structure. After describing how this literature helps to understand the nature of financial crises, the paper focuses on a historical examination

of a series of financial crises in the United States, beginning with the panic of 1857 and ending with the stock market crash of October 19, 1987. The asymmetric information approach explains the patterns in the data and many features of these crises which are otherwise hard to explain. It also suggests why financial crises have had such important consequences for the aggregate economy over the past one hundred and fifty years.

Mizon, Grayham E.

TI Evaluating Dynamic Econometric Models by Encompassing the VAR. **AU** Hendry, David F.; Mizon, Grayham E.

Moghadam, Reza

PD August 1990. **TI** Wage Determination: An Assessment of Returns to Education, Occupation, Region and Industry in Great Britain. **AA** London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 8; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 71. **PR** no charge. **JE** J31, J24. **KW** Wage Determination. Education. Wage Structure. Wage Differentials.

AB Between 1978 and 1985 real wages of male employees rose by nearly 30 per cent. The main purpose of this paper is to contribute to the understanding of the determinants of individual wages in an attempt to account for this rise in real wages. We estimate a time series of cross-section wage equations for male employees in Great Britain using individual level data from the Family Expenditure Survey for the period 1978 to 1985. Before demonstrating how a time series of cross-sections can be fruitfully used in accounting for growth in real wages, we pay special attention to returns to education. In particular, those in our sample have been affected by several changes to the statutory minimum school leaving age. We test whether it is the absolute or the relative level of education in comparison to the minimum school leaving age that matters with regard to wage determination.

Moreno, Diego

PD October 1990. **TI** Nonmanipulable Voting Schemes when Participants' Interests are Partially Decomposable. **AU** Moreno, Diego; Walker, Mark. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-33; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 23. **PR** no charge. **JE** D71, D72, D81. **KW** Voting. Decision Theory. Dictatorship. Social Choice.

AB Recent papers by Barbera and Peleg and by Zhou have established that the Gibbard-Satterthwaite theorem remains valid when individuals are restricted to reporting only "reasonable" preferences. We present a theorem that covers situations in which preferences may be restricted to reasonable ones, as in Barbera and Peleg, and Zhou, but in which, additionally, it may be known in advance that some dimensions of the social decision do not affect all the participants -- i.e., in which the social decisions are partially decomposable into decisions that affect only subsets of the participants. As in previous theorems, the conclusion of this new theorem is that nonmanipulable voting schemes must be dictatorial.

Moresi, Serge

TI Volatility, Information, and Noise Trading.

AU Danthine, Jean-Pierre; Moresi, Serge.

Morrison, Catherine J.

PD May 1990. **TI** Market Power, Economic Profitability and Productivity Growth Measurement: An Integrated Structural Approach. **AA** Tufts University and National Bureau of Economic Research. **SR** National Bureau of Economic Research Working Paper: 3355; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 39. **PR** \$2.00. **JE** 226, 641, 611, 631. **KW** Manufacturing. Productivity. Scale Economies. Excess Capacity.

AB The purpose of this paper is to treat scale economies, profit-maximizing markups, economic profitability, capacity utilization and productivity growth within an integrated structural model, and to assess their interactions empirically using annual two digit U.S. manufacturing data. Attention is focused on error biases in measuring productivity using traditional accounting procedures. An important conjecture by Robert Hall, that the coexistence of normal economic profits and positive markups of price over marginal cost imply the existence of substantial scale economies and excess capacity, is then examined using this structure.

Moura-Roque, Fatima

TI Public Expenditure Growth in Greece and Portugal: Wagner's Law and Beyond. **AU** Courakis, Anthony S.; Moura-Roque, Fatima; Tridimas, George.

Mullahy, John

TI Consistent Estimation and Inference for Econometric Frontier Models Estimated by Least Squares. **AU** Kopp, Raymond J.; Mullahy, John.

Mullin, John J.

PD April 1990. **TI** The Implications of Monetary versus Bond Financing of Debt-Peso Swaps. **AA** Federal Reserve Bank of New York. **SR** Federal Reserve Bank of New York Research Paper: 9005; Federal Reserve Bank of New York, 33 Liberty St., Rm. 901, New York, New York 10045. **PG** 29. **PR** no charge. **JE** F31, F33, F34. **KW** Debt Swaps. Foreign Exchange. Exchange Markets. Public Debt. Government Debt. Capital Mobility.

AB Debt-peso swap programs are intended to achieve the twin objectives of external debt reduction and capital flight repatriation. When financed by domestic bond issuance, debt-peso swaps merely transform external government debt into domestic government debt and may actually increase overall public sector interest expenses. When financed by domestic credit expansion, debt-peso swaps are in effect costly direct buybacks of external debt with official foreign exchange reserves; the cost in terms of official reserves depends on the parallel exchange rate premium, which in turn depends on the size of the swap program.

Muris, Timothy J.

TI Domestic Discretionary Spending in the 1980's. **AU** Cogan, John F.; Muris, Timothy J.

Murphy, Kevin M.

TI Human Capital, Fertility, and Economic Growth. **AU** Becker, Gary S.; Murphy, Kevin M.; Tamura, Robert F.

Myers, Gordon M.

PD June 1989. **TI** Optimality, Free Mobility and the Regional Authority in a Federation. **AA** McMaster University. **SR** Queen's John Deutsch Institute Discussion Paper: 10; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. **PG** 21. **PR** \$3.00 Canada and U.S.; \$3.50 Foreign. **JE** R13, R23, H77, H72. **KW** Externalities. Migration. Regional Economics. Public Goods. Local Governments. Government Spending.

AB This paper examines the efficiency properties of a federation characterized by strategically competing regions and freely mobile homogeneous individuals. Analyses of this economy have concluded that achieving the Pareto optimum will require intervention by a national authority. This paper makes one basic point; the Nash equilibrium of regional authority behavior is Pareto optimal. The implication is that there is no role for a national authority, in either providing interregional transfers or correcting for decentralized provision of public goods. The Nash equilibrium involves Samuelson public goods provision, and regions purchasing preferred population distributions with optimal interregional transfers.

Myerson, Roger B.

PD September 1990. **TI** Viscous Population Equilibria. **AU** Myerson, Roger B.; Pollock, Gregory B.; Swinkels, Jeroen. **AA** Myerson and Pollock: Northwestern University. Swinkels: Stanford University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 906; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 11. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C73, R10, C62. **KW** Biological Games. Stable Strategies. Evolution. Equilibrium. Population.

AB Viscosity in a biological population is the tendency of individuals to have a higher rate of interactions with their closer relatives than with similar numbers of more distantly related individuals. This paper presents a simple method of equilibrium analysis to predict the effect of viscosity in biological games. Taking the limit as viscosity goes to zero, a set of fluid population equilibria is defined. The set of fluid population equilibria is nonempty and includes all evolutionary stable strategies.

PD September 1990. **TI** Fictitious-Transfer Solutions in Cooperative Game Theory. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 907; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 24. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C71. **KW** Cooperative Games. Inner Core.

AB The method of fictitious transfers is used in cooperative game theory to extend solution concepts from the transferable utility case to the more general case of games without transferable utility. The importance of this idea is examined in the context of the history of its development and some recent results. A new interpretation of the inner core is discussed.

Neftci, Salih N.

TI Business Cycles as Nonlinear Phenomena: Characterizing Swiss and German Cycles 1965-1988. **AU** Danthine, Jean-Pierre; Neftci, Salih N.

Neumark, David

TI Fertility Timing, Wages, and Human Capital. **AU** Blackburn, McKinley L.; Neumark, David; Bloom, David E.

Newbery, David M.

PD May 1990. **TI** Growth, Externalities and Taxation. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 149; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 22. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** D43, H23, H21, O41, D62. **KW** Deadweight Loss. Externalities. Growth Theory. Taxes. Imperfect Competition. Pricing.

AB The "New Growth Theory" emphasizes the importance of various kinds of externalities. These may take the form of public goods like knowledge, or it may be that certain sectors, such as manufacturing, enjoy economies of scale. In such cases, market prices will exceed the efficient price, and to the extent that these market failures precipitate imperfect competition, market prices may be further raised above even average private costs, introducing an additional distortion. One of the central insights of the study of costs of distortions is that these costs rise as the square of the distortion. It follows that compounding distortions greatly increases their costs, and that it is no longer satisfactory to consider each in isolation, since their combined effect is greater than the sum of each individual effect. Taxes levied on activities whose market price exceeds their efficient price may therefore be substantially more costly than simple market-priced based calculations may suggest, and may have very adverse dynamic effects.

Newman, Andrew F.

TI Occupational Choice and the Process of Development. **AU** Banerjee, Abhijit V.; Newman, Andrew F.

Nickell, Stephen

TI Unions and Investment in British Industry. **AU** Denny, Kevin; Nickell, Stephen.

Nikolaou, Agelike

PD September 1989. **TI** Harmonisation of Tobacco and Alcohol Taxes in the EEC and the Welfare of Greek Consumers. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 4/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 27. **PR** not available. **JE** 323, 921, 914. **KW** Indirect Taxes. Demand System. Income Function. Living Standards. Consumer Economics.

AB Estimation of an aggregate Almost Ideal Demand System including distributional effects provides the basis for an empirical analysis of the welfare effects of changes in indirect taxes with special references to the recent EEC proposals for harmonization of the indirect taxes. Particularly in this paper we are concerned with the welfare effects of harmonizing the alcohol and tobacco indirect taxes for the Greek consumers. It is suggested that it could contribute in worsening the situation for the low-income groups however the distributional consequences would depend on the nature of compensatory measures to protect the living standards of poorer households.

Nishimura, Kazuo

TI Endogenous Fertility and Growth. **AU** Benhabib, Jess; Nishimura, Kazuo.

PD May 1990. **TI** Pay-As-You-Go Public Pensions with Endogenous Fertility. **AU** Nishimura, Kazuo; Jansen, Zhang. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 202; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. **PG** 25. **PR** not available. **JE** 915, 918, 022. **KW** Fertility. Pensions. Savings. Social Security.

AB A two-period overlapping generations model with a consumption externality used by Veall (1986) is generalized to allow for endogenous fertility. We show that gifts to the old, that can be viewed as social security contributions, are always positive in the steady state. Several equilibrium concepts are analyzed. A Stackelberg steady state, when it exists, always has zero savings and coincides with a Nash steady state. We prove that a Pareto Optimal allocation is sustainable if savings are zero and fertility is exogenous. A Nash steady state is, by definition, sustainable. Hence, it is argued that Veall's interpretation of social security as an Optimal Social contract should be viewed with caution.

Noussair, Charles

PD August 1990. **TI** Allocating Priority with Auctions: An Experimental Analysis. **AU** Noussair, Charles; Porter, David. **AA** California Institute of Technology. **SR** Caltech Social Science Working Paper: 747; Division of Humanities and Social Sciences, 228-77, California Institute of Technology, Pasadena, CA 91125. **PG** 58. **PR** no charge. **JE** 022, 215. **KW** Experimental Economics. Auctions. Rationing. Resource Allocation.

AB There are many examples of markets where resources that were allocated ex-ante must be rationed ex-post. Two alternative methods of rationing are considered in this paper: priority service (see Chao and Wilson [1987] and Wilson [1989]) and proportional rationing (see Spulber [1989]). An experimental environment is developed in which the two rules are implemented within two well known institutions, the English and the Uniform Price sealed bid auctions, under two different information conditions. We find that priority service generates more efficient allocations than proportional rationing, the sealed bid auction performed better than the English and that both mechanisms and rationing rules were more efficient when there was a lack of common information.

Nyarko, Yaw

PD October 1990. **TI** Bayesian Rationality and Learning without Common Priors. **AA** New York University. **SR** New York University Economic Research Reports: 90-45; New York University, Faculty of Arts and Science, Department of Economics, Washington Square, New York, N.Y. 10003. **PG** 73. **PR** no charge. **JE** D83, D21. **KW** Bayes' Rule. Common Knowledge. Learning. Firm Behavior.

AB I study dynamic economic models where agents are uncertain not only about some relevant parameters of the economy (the "fundamentals"), but where agents are also uncertain about the actions that will be chosen by other agents in the economy. In the context of a model of a large number of quantity-setting firms facing unknown stochastic demand curves the following results are obtained: Convergence to the

Nash equilibrium occurs if some key parameters are less than unity and agents have well-specified beliefs which have the "truth" in its support. Without the assumption that agents' models are correctly-specified I show that one may obtain optimal actions exhibiting cyclical behavior on every sample path. Without the bound on the key parameters I obtain an "anything is possible" result which says that any feasible stochastic process of actions may be the optimal action process under some beliefs.

O'Brien, James M.

TI Equity Underwriting Risk. **AU** Liang, J. Nellie; O'Brien, James M.

Oates, Wallace E.

TI Environmental Economics: A Survey. **AU** Cropper, Maureen L.; Oates, Wallace E.

Oaxaca, Ronald L.

TI Unemployment Insurance and Job Search. **AU** Cox, James C.; Oaxaca, Ronald L.

TI Tests for a Reservation Wage Effect. **AU** Cox, James C.; Oaxaca, Ronald L.

TI Direct Tests of the Reservation Wage Property. **AU** Cox, James C.; Oaxaca, Ronald L.

Oliner, Stephen D.

PD October 1990. **TI** Constant-Quality Price Change, Depreciation, and Retirement of Mainframe Computers. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 110; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 79. **PR** no charge. **JE** L63. **KW** Depreciation. Prices. Manufacturing.

AB This paper estimates constant-quality price change, depreciation, and retirement patterns for IBM mainframe computers using previously untapped data sources. I find that constant-quality prices for these goods fell at about a 20 percent annual rate between the early 1970s and the mid 1980s; this result holds with either IBM list prices or prices from the second-hand market. The estimated retirement distribution has an average service life of about 6.5 years, with some evidence that this average life has become shorter over time. The paper estimates several measures of depreciation and employs the results for depreciation and retirement to assess the stocks of office and computing equipment published by the Bureau of Economic Analysis.

Ostroy, Joseph M.

TI The Nonatomic Assignment Model. **AU** Gretsky, Neil E.; Ostroy, Joseph M.; Zame, William R.

Pagano, Marco

TI Can Severe Fiscal Contractions be Expansionary? Tales of Two Small European Countries. **AU** Giavazzi, Francesco; Pagano, Marco.

Palmer, Karen

PD December 1989. **TI** Using an Upper Bound on

Stand-Alone Cost in Tests of Cross-Subsidy. AA Resources for the Future. SR Resources for the Future Quality of the Environment Division Discussion Paper: QE90-07; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. PG 20. PR \$2.25 prepaid (U.S. funds only). JE 613, 022. KW Regulation. Scale Economies. Subsidies.

AB Stand alone cost is an essential ingredient in all previously developed tests of cross-subsidy. This paper presents a new test for cross-subsidies that substitutes an upper bound on the stand alone cost for the often unobservable actual stand alone cost. The expression for this upper bound can be evaluated using estimated cost function parameters and observed data on total costs of joint production. The implications of non zero profits and of selling products to unregulated markets for tests of cross-subsidy are discussed.

Panic, M.

PD February 1990. TI Economic Development and Trade Policy. AA University of Cambridge. SR University of Cambridge DAE Working Paper: 9006; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 38. PR \$4.00 (2.00 pounds); checks payable to University of Cambridge. JE F13, F11, O19. KW Protectionism. Trade Policy. Scale Economies. Tariffs.

AB For over two centuries now economists, politicians and, frequently, the public at large have been arguing about the relative merits of free trade and protection in improving economic welfare. This paper suggests (a) that the importance of trade policy has been exaggerated and, more relevant, (b) that it is the level of economic development that determines a country's trade policy, rather than the other way round. Simple empirical tests, using data for different periods of the twentieth century, support these propositions, except for the second half of the 1970s when there was a breakdown in the relationship between levels of development and trade policies - as a result of protectionist policies pursued by the most industrialized countries.

Park, Hyung S.

TI Portfolio Efficiency Tests Based on Stochastic Dominance and Cointegration. AU Sengupta, Jati K.; Park, Hyung S.

TI The Asymmetry of Market Returns and Its Impact on the Mean Variance Frontier. AU Sengupta, Jati K.; Park, Hyung S.

Patel, Jayendu

TI Hot Hands in Mutual Funds; The Persistence of Performance, 1974-87. AU Hendricks, Darryll; Patel, Jayendu; Zeckhauser, Richard.

Paxson, Christina H.

TI Patterns of Aging in Thailand and Cote D'Ivoire. AU Deaton, Angus; Paxson, Christina H.

Pearce, David

TI Information and Timing in Repeated Partnerships. AU Abreu, Dilip; Milgrom, Paul; Pearce, David.

Pecchenino, R. A.

PD August 1990. TI P* Type Models: Evaluation and Forecasts. AU Pecchenino, R. A.; Rasche, Robert H. AA Michigan State University. SR National Bureau of Economic Research Working Paper: 3406; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 34. PR \$2.00. JE E58, E42, E47, E52. KW Federal Reserve. Inflation. Monetary Policy. Central Bank. Simulation Model.

AB This paper critically evaluates the Federal Reserve's p* model of inflation, and develops a model of national income determination implicit in the p* formulation. We use this model to forecast the future paths of key macroeconomic variables and investigate its behavior under a variety of deterministic monetary policy rules. These forecasts and policy simulations suggest a dynamic economic behavior inconsistent with stylized facts, and lead us to question the underlying structure of the p* formulation.

Peled, Dan

TI Competitive Banking with Fractional Reserves and Regulations. AU Bental, Benjamin; Eckstein, Zvi; Peled, Dan.

Perloff, Jeffrey M.

TI The Creation of Dominant Firm Market Power in the Coconut Oil Export Market. AU Buschena, David E.; Perloff, Jeffrey M.

TI A Dynamic Model of Oligopoly in the Coffee Export Market. AU Karp, Larry S.; Perloff, Jeffrey M.

TI Why Industrial Policies Fail: Limited Commitment. AU Karp, Larry S.; Perloff, Jeffrey M.

PD September 1990. TI The Impact of Wage Differentials on Choosing to Work in Agriculture. AA University of California, Berkeley. SR University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 557; 207 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. PG 35. PR \$7.00. JE J43, J31, Q12, Q11, J62. KW Wage Differentials. Agricultural Labor. Agriculture. Labor Force.

AB The likelihood of nonagricultural workers joining the agricultural work force in response to an increase in the agricultural wage is estimated in this study. Knowing the responsiveness of the labor supply to wage differentials is important for evaluating many public policies. For example, if the Immigration Reform and Control Act of 1986 eventually restricts the supply of ineligible immigrant labor in the United States, many farmers and legislators fear large wage increases, which will lead to significant crop losses (at least in the short run) or mass noncompliance with the law. How realistic are the fears that large wage adjustments will be required to equilibrate the hired farm worker labor market is assessed in this study.

Pesaran, M. Hashem

TI Alternative Approaches to Testing Non-Nested Models with Autocorrelated Disturbances: An Application to Models of U.S. Unemployment. AU McAleer, Michael; Pesaran, M. Hashem; Bera, Anil K.

PD April 1990. TI Rational Expectations in Disaggregated Models: An Empirical Analysis of OPEC's Behaviour. AA University of California, Los Angeles and

Trinity College, Cambridge. **SR** University of Cambridge DAE Working Paper: 9007; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 32. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** D83, C52, Q41. **KW** Rational Expectations. Nash Bargaining. OPEC. Energy. Oil.

AB This paper emphasizes the importance of information heterogeneity in the analysis of disaggregated rational expectations (DRE) models, and shows under relatively plausible assumptions that these models can be estimated consistently. The focus of attention in this paper is on models with current expectations of the endogenous variables, but the analysis can be extended to DRE models with future expectations. As an example the paper employs the Nash bargaining framework and derives an output model of OPEC under heterogeneous information which is then estimated over the period 1974(3)-1974(4) for all the 13 OPEC member countries. The application to OPEC's output allocation problem is based on rather strong assumptions and abstracts from the intertemporal nature of output decisions. Nevertheless, the results are encouraging and generally provide plausible estimates of the relative bargaining powers of OPEC member countries.

PD May 1990. **TI** Estimating Limited-Dependent Rational Expectations Models. **AU** Pesaran, M. Hashem; Samiei, Hossein. **AA** Pesaran: University of California, Los Angeles and Trinity College, Cambridge. Samiei: Fitzwilliam College, Cambridge. **SR** University of Cambridge DAE Working Paper: 9017; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 37. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** C13, C15, C22, C51. **KW** Monte Carlo. Rational Expectations. Limited Dependent Variable.

AB This paper analyzes a linear rational expectations model with current expectations when there are a priori bounds on the dependent variable. We show that for plausible values of the parameters, the model has a unique RE solution which can be computed iteratively. We then discuss the maximum likelihood and other methods of estimating such a limited dependent rational expectations (LD-RE) model and perform a number of Monte Carlo experiments to shed light on the small sample properties of the estimators. The results clearly illustrate the importance of taking proper account of the limited nature of the dependent variable in the estimation of the parameters of the LD-RE models.

PD July 1990. **TI** Expectations in Economics. **AA** University of California, Los Angeles and Trinity College, Cambridge. **SR** University of Cambridge DAE Working Paper: 9016; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 35. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** D84, D83, C42. **KW** Expectations. Learning. Rational Expectations. Adaptive Expectations. Survey Methods.

AB This paper presents a selected survey of the literature on expectations in economics. Its focus will be on a discussion of alternative models of expectations formation including, adaptive, extrapolative, and rational expectations models. It also briefly discusses the learning problem and argues that given the extreme information assumptions that underlie the Rational Expectations Hypothesis a greater emphasis needs to

be placed on the use of survey expectations in empirical economic analysis. This in turn requires greater and better surveys and the development of more appropriate techniques suited to the use of survey expectations in econometric models.

Peters, H. Elizabeth

TI Fertility and the Personal Exemption: Implicit Pronatalist Policy in the United States. **AU** Whittington, Leslie A.; Peters, H. Elizabeth; Alm, James.

Philippopoulos, Apostolis

PD October 1989. **TI** Macroeconomic Dynamics and Optimal External Borrowing in a Monetary Open Economy. **AA** Birkbeck College. **SR** Birkbeck College Discussion Papers in Economics: 1/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. **PG** 24. **PR** not available. **JE** 431, 111, 411. **KW** Open Economy Model. Economic Growth. Growth Theory. Debtor Nation. Interest Rates.

AB The endogenous dynamic paths of consumption, employment/output, money and external borrowing are analyzed from the point of view of solvency. The model is a cash-in-advance general equilibrium open economy which, being a large debtor, affects the interest rate at which it can borrow from the world bond market. This model leads to a unique steady state and a single convergent equilibrium path. Once having placed the economy to this saddlepath, along which a decreasing debt leads to decreasing marginal debt repayments, the surplus of output over consumption can start decreasing over time.

Phillips, Peter C. B.

PD July 1990. **TI** To Criticize the Critics: An Objective Bayesian Analysis of Stochastic Trends. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 950; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 44. **PR** no charge. **JE** 211, 212. **KW** Bayesian Analysis. Unit Roots. Time Series. Linear Regression Model. Posterior Density.

AB We challenge the methods, the assertions and the conclusions of many articles on the Bayesian analysis of unit roots. Our approach is also Bayesian but we employ objective ignorance priors not flat priors in our analysis. Ignorance priors represent a state of ignorance about the value of a parameter and in many models are very different from flat priors. We demonstrate that in time series models flat priors do not represent ignorance but are actually informative (sic) precisely because they neglect generically available information about how autoregressive coefficients influence observed time series characteristics. Contrary to their apparent intent, flat priors unwittingly bias inferences toward stationary and iid alternatives where they do represent ignorance, as in the linear regression model.

Pissarides, Chris

TI Female Participation and Male Unemployment Duration in Greece: Evidence from the Labour Force Survey. **AU** Meghir, Costas; Ioannides, Yannis; Pissarides, Chris.

Pittis, Nikitas

PD October 1989. **TI** On the Exchange Rate of the Dollar: Market Fundamentals versus Speculative Bubbles. **AA** Birkbeck College. **SR** Birkbeck College Discussion

Papers in Economics: 2/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. PG 42. PR not available. JE 431, 411. KW Exchange Rates. Currency. Devaluation. Bubbles. AB It is often argued that the exchange rate volatility during the recent floating period was too excessive to be attributed only to market fundamentals. In this paper indirect tests for stochastic exchange rate bubbles are carried out in the context of a Dornbusch-type monetary model, by comparing the order of integrability and examining the cointegrability between exchange rates and variables in fundamentals. A direct test for deterministic bubbles is also carried out for the period of sharp appreciation of the dollar, Jan. 1981 to Feb. 1985. No clear-cut conclusions can be drawn from these tests. Any evidence for bubbles should be interpreted with caution, since a possible inadequacy (misspecification) of the model may produce misleading inferences.

Plott, Charles R.

TI Competitive Equilibria in Overlapping Generations Experiments. AU Aliprantis, Charalambos D.; Plott, Charles R.

Podivinsky, Jan M.

PD December 1990. TI Testing Misspecified Co-integrating Relationships. AA University of Southampton. SR Monash Department of Econometrics Working Paper: 19/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. PG 16. PR no charge. JE 211, 132. KW Co-integration. Likelihood Ratio Tests. Misspecification. Monte Carlo.

AB We evaluate by Monte Carlo simulation the empirical sizes of Johansen's likelihood ratio tests for the number of co-integrating vectors using his tabulated asymptotic critical values. The powers of these tests and of the Dickey-Fuller and co-integrating regression Durbin-Watson tests for co-integration are compared in an experimental design where more than one co-integrating vector is possible, and where there is a possible mismatch between the variables used in the construction of the tests and the variables entering the true co-integrating vector(s). This analysis allows for potential overspecification or underspecification of the variables included in a co-integration analysis.

Polachek, Solomon

TI Measuring Ignorance in the Market: A New Method with an Application to Physician Services. AU Gaynor, Martin; Polachek, Solomon.

Polinsky, A. Mitchell

PD September 1990. TI Enforcement Costs and the Optimal Magnitude and Probability of Fines. AU Polinsky, A. Mitchell; Shavell, Steven. AA Polinsky: Stanford University. Shavell: Harvard University. SR National Bureau of Economic Research Working Paper: 3429; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 17. PR \$2.00. JE 916. KW Law Enforcement. Legal System.

AB Some of the costs of enforcing laws are "fixed" -- in the sense that they do not depend on the number of individuals who commit harmful acts -- while other costs are "variable" -- they rise with the number of such individuals. This article analyzes the effects of fixed and variable enforcement costs on the

optimal fine and the optimal probability of detection. It is shown that the optimal fine rises to reflect variable enforcement costs; that the optimal fine is not directly affected by fixed enforcement costs; and that the optimal probability depends on both types of enforcement costs.

Pollard, David

TI A Functional Central Limit Theorem for Strong Mixing Stochastic Processes. AU Andrews, Donald W. K.; Pollard, David.

Pollock, Gregory B.

TI Viscous Population Equilibria. AU Myerson, Roger B.; Pollock, Gregory B.; Swinkels, Jeroen.

Porter, David

TI An Experimental Analysis of Nash Refinements in Signaling Games. AU Banks, Jeffrey; Camerer, Colin; Porter, David.

TI Allocating Priority with Auctions: An Experimental Analysis. AU Noussair, Charles; Porter, David.

Porter, Robert H.

TI Auctions for Oil and Gas Leases with an Informed Bidder and a Random Reservation Price. AU Hendricks, Kenneth; Porter, Robert H.; Wilson, Charles A.

TI Auctions for Oil and Gas Leases with an Informed Bidder and a Random Reservation Price. AU Hendricks, Kenneth; Porter, Robert H.; Wilson, Charles A.

Portes, Richard

TI International Costs and Benefits from EMU. AU Alogoskoufis, George S.; Portes, Richard.

Portney, Paul R.

TI An Economic Appraisal of the DC Appeals Court Ruling on the DOT Regulations for Natural Resource Damage Assessments. AU Kopp, Raymond J.; Portney, Paul R.; Smith, V. Kerry.

Pratten, C. F.

PD July 1990. TI Three Notes on U.K. Overseas Investment. AA University of Cambridge. SR University of Cambridge DAE Working Paper: 9014; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. PG 18. PR \$4.00 (2.00 pounds); checks payable to University of Cambridge. JE F32, F21, F34. KW Balance of Payments. Capital Gains. Current Account. International Investment. Stock Market.

AB The novel elements of the notes are: (a) direct investment is valued at stock market prices instead of book values, (b) capital gains are treated as an integral part of the balance of payments, and (c) an attempt is made to estimate the trend rate of capital gains. Note 1 summarizes the reasons for refocussing the balance of payments to incorporate capital gains and the effects of their inclusion on the U.K. balance of payments. Notes 2 and 3 give supporting evidence and calculations for the estimates reported in Note 1. Note 2 outlines the reasons for using stock market values to value direct overseas investment in place of book values, and estimates the effects of using

market values. Note 3 details the calculation of the adjustments for the effects of inflation on the U.K. net borrowing.

Preston, Ian

PD September 1990. **TI** Asymptotically Valid Inference for a Common Class of Poverty Measures with an Application to U.K. Regional Poverty. **AA** Nuffield College, Oxford and Institute for Fiscal Studies, London. **SR** Oxford Applied Economics Discussion Paper: 97; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 16. **PR** not available. **JE** C43, O15, J11. **KW** Poverty. Welfare Theory.

AB The properties of poverty indices from a welfare theoretical point of view are increasingly well understood. This paper aims to extend knowledge of their statistical properties, pointing out in particular that a common class of indices - those based on the equally distributed equivalent income of the censored distribution - being simply generalized means, have easily derived asymptotic sampling distributions and therefore offer a convenient basis for asymptotically valid and distribution free statistical inference in questions relating to poverty comparisons. An illustration of the importance of such consideration is provided by an application to regional poverty measures computed from the 1983 Family Expenditure Survey.

Qin, Cheng-Zhong

PD September 1990. **TI** The Inner Core and the Strongly Inhibitive Set. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 11-90; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 13. **PR** no charge. **JE** C71, C62. **KW** Inner Core. Market Game. Game Theory. Coalition.

AB The inner core, motivated by the study of competitive outcomes in the cores of market games, is shown to be contained in the strongly inhibitive set, and coincides with the strongly inhibitive set for a large class of games.

Ramaswamy, Ramana

PD June 1990. **TI** Efficiency Wages and Wage Dispersion. **AU** Ramaswamy, Ramana; Rowthorn, Robert E. **AA** Ramaswamy: Queen's College, Cambridge. Rowthorn: University of Cambridge. **SR** University of Cambridge DAE Working Paper: 9012; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 17. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** J31, J41. **KW** Efficiency Wages. Wage Differentials. Shirking.

AB The efficiency wage hypothesis has normally been used to generate an equilibrium unemployment. We use it instead, to generate an equilibrium wage distribution. This paper starts by generalizing the Solow condition. We then use our results on effort-wage elasticities to derive a model of wage dispersion. The wage distribution in our model is shown to be an equilibrium under assumptions of both perfect and imperfect information. These results help in resolving some empirical puzzles connected with inter-industry wage dispersion.

Ramey, Garey

TI Advertising and Coordination. **AU** Bagwell, Kyle; Ramey, Garey.

Rapaczynski, Andrzej

TI Markets and Institutions in Large Scale Privatizations: An Approach to Economic and Social Transformations in Eastern Europe. **AU** Frydman, Roman; Rapaczynski, Andrzej.

Rasche, Robert H.

TI P* Type Models: Evaluation and Forecasts. **AU** Pecchenino, R. A.; Rasche, Robert H.

Rausser, Gordon C.

TI A Model of Nutrient Demand and the Allocation of Time. **AU** Gawn, Glynis; Rausser, Gordon C.; Zilberman, David.

TI Endogenous Policy Theory: The Political Structure and Policy Formation. **AU** Zusman, Pinhas; Rausser, Gordon C.

Ravikumar, B.

TI Participation Dynamics: Sunspots and Cycles. **AU** Chatterjee, Satyajit; Cooper, Russell; Ravikumar, B.

Rhee, Changyong

TI The Stock Market, Profit and Investment. **AU** Blanchard, Olivier Jean; Rhee, Changyong; Summers, Lawrence.

Rice, Eric M.

TI Fiscal Paradise: Foreign Tax Havens and American Business. **AU** Hines, James R., Jr.; Rice, Eric M.

Roberts, John M.

PD May 1990. **TI** The Sources of Business Cycles: A Monetarist Interpretation. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 108; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 25. **PR** no charge. **JE** E32, E31, E52. **KW** Business Cycle. Monetary Policy. Inflation. Structural Shocks.

AB Starting with Blanchard and Quah (1989), a number of papers have used long-run restrictions to decompose the residuals from vector autoregressions into structural shocks. One set of restrictions, used by Gali (1989) and Shapiro and Watson (1988), identifies a "natural" level of output by requiring that nominal shocks have no long-run effect on output. Less work has been done in identifying structural shocks that are nominal in origin. In this paper, I use restrictions motivated by Friedman's (1963) remark that "inflation is always and everywhere a monetary phenomenon." Hence low frequency movements in inflation are the result of actions by the central bank. For the purposes of putting restrictions on a vector autoregression, this analysis suggests that permanent shocks to inflation need not be correlated with other shocks hitting the economy.

Robinson, Sherman

PD October 1990. **TI** Pollution, Market Failure, and Optimal Policy in an Economywide Framework. **AA** University of California at Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 559; 207

Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 19. **PR** \$5.00. **JE** D62, Q21, D52, D58. **KW** Public Goods. Externalities. Pollution.

AB Pollution is an economic problem because it involves various kinds of market failure. First, much pollution generation is an unpriced externality from production and consumption activities. Second, some kinds of pollution represent a public good, with a "missing market" for pollution control activities. Starting from seminal work by Leontief, a number of economywide models have been developed which consider pollution within an input-output framework and capture the production externality. This paper provides a more general empirical modeling framework which can be used to analyze optimal policy choices when pollution is also treated as a public good. The framework involves three components. First, a multisector, economywide, computable general equilibrium (CGE) model is extended to include the externality characteristics of pollution generation. Second, pollution and cleaning activities are explicitly included in a social welfare function. Finally, the social welfare function and the CGE model are joined into a nonlinear programming model.

Rodrigues, Anthony

TI U.S. External Imbalances; Financial Strains and Macroeconomic Choices. **AU** Hung, Juann; Kasman, Bruce; Rodrigues, Anthony.

Romer, Thomas

PD October 1990. **TI** Political Foundations of the Thrift Debacle. **AU** Romer, Thomas; Weingast, Barry R. **AA** Romer: Carnegie-Mellon University. Weingast: Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-22/10; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 60. **PR** not available. **JE** 314, 613. **KW** Savings and Loan. Regulation. Congress. Public Policy. Financial Markets.

AB This paper studies the political reaction to the re-emergence of troubles in the savings and loan industry in the mid-1980s as the crisis began to grow. There is nearly unanimous agreement among researchers that "gambling for resurrection" by insolvent thrifts that were allowed to remain open was the main source of the exploding losses in the industry. But this leads to several key questions. Why did regulators not stop the gambling? Given the rapid growth in the problem, why was Congress so slow to respond? Why was legislation enacted in 1987 too little, too late? We argue that massive gambling for resurrection, leading to huge debts, was allowed to proceed because Congress expanded and enforced a policy of forbearance.

Rose, Andrew K.

TI Waiting for Work. **AU** Akerlof, George A.; Rose, Andrew K.; Yellen, Janet L.

Rosenberg, Norman J.

TI Agriculture in a Changing Environment. **AU** Crosson, Pierre; Rosenberg, Norman J.

Rosenthal, Robert W.

TI Some Inefficiency Implications of Generational Politics and Exchange. **AU** Kotlikoff, Laurence J.; Rosenthal, Robert W.

Rotemberg, Julio

TI Target Zones with Limited Reserves. **AU** Krugman, Paul; Rotemberg, Julio.

Rowthorn, Robert E.

PD December 1989. **TI** International Trade and Investment under Oligopoly: The Role of Market Size. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 146; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 31. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** F13, F23, F21, F11. **KW** Multinational Firms. Oligopoly. Trade Barriers. International Firms.

AB This paper examines the factors which influence intra-industry trade and investment under oligopoly. It argues that major determinants are the size of markets and the height of trade barriers. If national markets are large and trade barriers high, intra-industry trade will be replaced by cross-investment between countries, whereby firms serve the markets of their foreign rivals by investing abroad instead of exporting. This result is established formally using a simple two country, two firm Cournot model. The same model is also used to examine how trade barriers influence prices and output. The paper concludes with an informal discussion of how economic growth affects the volume of intra-industry trade.

TI Efficiency Wages and Wage Dispersion. **AU** Ramaswamy, Ramana; Rowthorn, Robert E.

PD July 1990. **TI** Nash Bargaining and the Shrinking Pie Game: A Brief Note. **AA** University of Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 153; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 11. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** C72, C78. **KW** Nash Bargaining. Noncooperative Game. Bargaining. Game Theory.

AB Using a simple model of sequential bargaining, this paper examines the relationship between Nash bargaining and noncooperative game theory. It shows how previous findings in this area are more robust than is generally realized.

Rubinovitch, Michael

TI Optimal Service Speeds in a Competitive Environment. **AU** Kalai, Ehud; Kamien, Morton I.; Rubinovitch, Michael.

Rubinstein, Ariel

PD May 1990. **TI** New Directions in Economic Theory-Bounded Rationality. **AA** Tel Aviv University. **SR** Tel Aviv Foerder Institute for Economic Research Working Paper: 11-90; Department of Economics, Tel Aviv University, Ramat Aviv 69978, Tel Aviv ISRAEL. **PG** 22. **PR** no charge. **JE** 026, 022. **KW** Decision Theory. Bounded Rationality. Game Theory.

AB The paper presents several models in which there is a strong contrast between the theories of decision making and games, on the one hand, and intuition as well as empirical and experimental facts on the other. These examples act as a springboard for the bounded rationality approach in economics and game theory. The paper discusses the directions in which economic theory is developing (or is likely to develop in the

future) in light of these examples.

Rudebusch, Glenn D.

TI A Nonparametric Investigation of Duration Dependence in the American Business Cycle. **AU** Diebold, Francis X.; Rudebusch, Glenn D.

PD December 1990. **TI** Trends and Random Walks in Macroeconomic Time Series; A Re-examination. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 139; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 40. **PR** no charge. **JE** 221, 131. **KW** Unit Root. Stationarity. Time Series. Economic Fluctuations.

AB The most influential research in macroeconomics during the last decade arguably has been Nelson and Plosser (1982), which provided evidence to support the existence of an autoregressive unit root in a variety of macroeconomic time series. I re-examine their evidence using small sample unit root test statistic distributions that are calculated from specific null and alternative models estimated from the data, including models that correct for the bias of the OLS coefficient estimates. Contrary to Nelson and Plosser's assertions, for many of the macroeconomic series they consider, the null and alternative models provide very different characterizations of persistence but cannot be distinguished with the unit root tests.

Ruebel, Gerhard

TI The Economic Effects of Expected Monetary and Fiscal Policy in Small Open Economies - An Intertemporal Approach. **AU** Schroeder, Juergen; Ruebel, Gerhard.

Rustichini, Aldo

PD December 1990. **TI** Convergence to Price-Taking Behavior in a Simple Market. **AU** Rustichini, Aldo; Satterthwaite, Mark A.; Williams, Steven R. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 914; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 67. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C78, D44, C72, D82. **KW** Bayesian Game. Auctions. Nash Equilibrium. Noncooperative Games. Asymmetric Information.

AB An independent private values model of trade with m buyers and m sellers is considered in which price is chosen to equate revealed demand and supply. In every symmetric Bayesian Nash equilibrium, each trader does not act as a price-taker, but instead strategically misrepresents his true demand/supply to influence price in his favor. This misrepresentation causes inefficiency. It is shown that the amount by which a trader misreports is $O(1/m)$ and the corresponding inefficiency is $O(1/(m \text{ squared}))$. Price-taking behavior and its associated efficiency thus quickly emerges despite the asymmetric information and the noncooperative behavior of traders.

Rustichini, Azod

TI (s,S) Equilibria in Stochastic Games with an Application to Product Innovations. **AU** Dutta, Prajit K.; Rustichini, Azod.

Rutherford, Thomas

PD June 1990. **TI** Endogenous Policy in a Computational General Equilibrium Framework. **AU** Rutherford, Thomas; Winer, Stanley L. **AA** Rutherford: University of Western Ontario. Winer: Carleton University and University of Western Ontario. **SR** University of Western Ontario Department of Economics Research Report: 9007; Department of Economics, Social Sciences Center, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 48. **PR** \$5.00 Canada; \$7.00 Elsewhere. **JE** E61, C68, E62. **KW** General Equilibrium Model. Policy Analysis. Fiscal Policy.

AB The analysis of policy in a computational general equilibrium (CGE) context usually proceeds on the assumption that the process determining policy instruments is exogenous to the equilibrium structure of the economy. This paper contributes to the art of CGE policy analysis by explicitly bringing the determination of policy outcomes into the general equilibrium structure. We specify and benchmark a CGE model in which fiscal structure is determined in a competitive political equilibrium. We also consider the meaning of policy analysis in the broader CGE model, and we illustrate a different type of analysis which is appropriate when policy outcomes are endogenously determined by political as well as by economic processes.

Rutkowski, Michal

PD July 1990. **TI** Labor Hoarding and Future Open Unemployment in Eastern Europe: The Case of Polish Industry. **AA** Central School of Planning and Statistics, Warszawa and London School of Economics. **SR** London School of Economics Centre for Economic Performance Discussion Paper: 6; Centre for Economic Performance, London School of Economics, Houghton Street, London WC2A 2AE, UNITED KINGDOM. **PG** 36. **PR** no charge. **JE** O52, J23, E24, J63. **KW** Labor Hoarding. Unemployment. Centrally Planned Economy. Eastern Europe. Poland.

AB Labor hoarding ensures that unemployment remains disguised or mostly disguised in socialist economies. Labor hoarding was prevalent in the 1960s after the absorption of post-capitalist labor reserves. The pattern was similar in almost all East European Centrally Planned Economies, but the nature of labor hoarding was different from market economies, where it is usually confined to smoothing adjustments over the business cycle. The paper contains an estimate of labor hoarding in Polish industry based on a Cobb-Douglas production function of the type employed earlier by Denison. A part of the residual factor of labor productivity growth that reflects underutilization of labor is used to derive estimates for labor hoarding.

Saari, Donald G.

PD October 1990. **TI** The Aggregate Excess Demand Function and other Aggregation Procedures. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 908; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 25. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** 022, 213. **KW** Demand Function. Voting. Elections. Aggregation.

AB Two theorems are given; the first extends the Sonnenschein-Mantel-Debreu theorem characterizing aggregate demand functions from the set of n greater than or

equal to 2 commodities to all $[(2 \text{ to the } n) - (n+1)]$ subsets of two or more commodities. The second theorem concerns spatial voting models for k greater than or equal to 2 candidates over a space of n issues. The relationships among the sincere election rankings of the candidates for all of the sets of $[(2 \text{ to the } n) - 1]$ issues are given. Both theorems have the same kind of conclusion; anything can happen. By showing the mathematical reasons for these results and by recalling some recent results from statistics, voting, and economics, it is argued that this "anything can happen" conclusion is the type one must anticipate from aggregation procedures; particularly processes of the type commonly used in economic models where the procedure is responsive to changes in agents' preferences, changes in data, etc.

Sala i Martin, Xavier

TI Public Finance in Models of Economic Growth. **AU** Barro, Robert J.; Sala i Martin, Xavier.

TI Economic Growth and Convergence Across the United States. **AU** Barro, Robert J.; Sala i Martin, Xavier.

Samiei, Hossein

TI Estimating Limited-Dependent Rational Expectations Models. **AU** Pesaran, M. Hashem; Samiei, Hossein.

Sands, Barbara N.

PD October 1990. **TI** Nonnested Hypotheses Testing in Applied Economics. **AU** Sands, Barbara N.; Trosset, Michael W. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-34; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 29. **PR** no charge. **JE** C12, C51, C52. **KW** Hypothesis Testing. Cox Test. Model Selection.

AB This article chronicles the use and abuse of nonnested hypothesis testing techniques in the applied economics literature over the last two decades. It is argued that the use of these procedures is frequently confused and that the confusion stems from a schizophrenia between measuring for a "correct" model and for a "best" model imbedded in the tests' structure. These two separate model selection criteria are identified and their implications for nonnested hypothesis testing discussed. One technique in particular, namely, the Cox test, is extensively analyzed.

Sappington, David E. M.

TI Selecting an Agent's Ability. **AU** Lewis, Tracy R.; Sappington, David E. M.

TI Conservation and Incentive Regulation. **AU** Lewis, Tracy R.; Sappington, David E. M.

Satterthwaite, Mark A.

TI Convergence to Price-Taking Behavior in a Simple Market. **AU** Rustichini, Aldo; Satterthwaite, Mark A.; Williams, Steven R.

Saunders, Anthony

TI IPOS and Venture Capitalists: A Test of the Dynamic Strategy Hypothes. **AU** Lim, Joseph; Saunders, Anthony.

TI Forebearance and Valuation of Deposit Insurance as a Callable Put. **AU** Allen, Linda; Saunders, Anthony.

TI When Does the Prime Rate Change?. **AU** Mester,

Loretta J.; Saunders, Anthony.

Savouri, Savvas

TI Labor-Market Mismatch: A Framework for Thought. **AU** Jackman, Richard; Layard, Richard; Savouri, Savvas.

TI An Analysis of Migration Based on the Hiring Function. **AU** Jackman, Richard; Savouri, Savvas.

Scaramozzino, Pasquale

TI Expected Inflation and Output Variability in Contracting and Flexible Price Models. **AU** Marini, Giancarlo; Scaramozzino, Pasquale.

Scharfstein, David

TI The Role of Banks in Reducing the Costs of Financial Distress in Japan. **AU** Hoshi, Takeo; Kashyap, Anil K.; Scharfstein, David.

Scherer, F. M.

PD December 1990. **TI** The Determinants of U.S. Intra-Industry Trade. **AU** Scherer, F. M.; Huh, Keun. **AA** Scherer: Harvard University. Huh: Samsung Industries. **SR** Bureau of the Census Center for Economic Studies Discussion Paper: 90-13; Center for Economic Studies, Bureau of the Census, Washington, DC 20233. **PG** 20. **PR** no charge. **JE** 421, 621, 431, 611. **KW** International Trade. Learning. R&D. Technology. Imports. Exports.

AB Responses from the Yale University survey of 650 research and development executives were linked to U.S. trade statistics at the four-digit SIC level for the years 1965-85 to test several hypotheses concerning intra-industry trade. A new index of intra-industry trade was developed to capture both the level and balance dimensions of import and export flows. Intra-industry trade is found to be more extensive, the higher industry R&D/sales ratios were, the more important economies of learning-by-doing were, and greater the relevance of academic engineering research was, and the more niche-filling strategies were emphasized in new product development.

Schiller, Robert J.

TI Forecasting Prices and Excess Returns in the Housing Market. **AU** Case, Karl E.; Schiller, Robert J.

Schlag, Karl H.

PD June 1990. **TI** Evolutionary Stability in Games with Equivalent Strategies, Mixed Strategy Types and Asymmetries. **AA** Northwestern University. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 912; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 50. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C73, C70. **KW** Evolution. Mixed Strategy. Asymmetric Game.

AB The concept of Evolutionary Stable Strategies (ESS) isn't consistent, and it is too stringent, when equivalent strategies are treated as the same strategy. This paper is able to resolve this problem by essentially defining everything w.r.t. sets of equivalent strategies instead of w.r.t. separate strategies. The result is a consistent concept that extends the traditional theorems. Additionally some open questions in the ESS literature can now be solved quite easily; it is shown that the classic theorem about the sufficiency of an ESS for dynamic

stability of a population holds also for finitely many mixed strategy types. Dynamic stability in asymmetric games is analyzed and it is shown that the same sufficiency results hold here too.

Schroeder, Juergen

PD March 1990. **TI** The Economic Effects of Expected Monetary and Fiscal Policy in Small Open Economies - An Intertemporal Approach. **AU** Schroeder, Juergen; Ruebel, Gerhard. **AA** Schroeder: University of Mannheim, West Germany and Stanford University. Ruebel: University of Mannheim, West Germany. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-7; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 31. **PR** not available. **JE** F32, E63, F21, E32. **KW** Economic Policy. Risk Premium. Monetary Policy. Current Account.

AB In this paper the economic effects of expected fiscal and monetary policy as well as of a change in the international risk premium are investigated in a two period model. It is shown that an expected fiscal expansion has no impact on current real production however a positive impact on the current trade account. On the other hand, an expected monetary expansion has a positive impact on current real production whereas the impact on the current trade account is ambiguous. An increase in the international risk premium causes an increase in current real production and an improvement in the current trade account.

Seabright, P.

PD February 1990. **TI** Can Small Entry Barriers have Large Effects on Competition? **AA** Churchill College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 145; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 38. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** D43, L51, L93, D82. **KW** Deregulation. Competition. Entry Barriers. Search Theory. Asymmetric Information. Airlines.

AB One of the main aims of the deregulation of previously heavily regulated markets is to diminish artificial barriers to entry. This paper develops a model in which potential competition has no direct effect upon the pricing behavior of incumbents, but affects the extent to which they can maintain costs levels higher than those of entrants while credibly deterring entry. This effect upon costs then has an indirect impact upon pricing behavior. However, it is not always easy to establish how low entry barriers really are: a second model is developed in which asymmetric information in the presence of small search costs can act both as a significant entry barrier, as well as helping firms to segment the market. These models are used to explain empirical anomalies in the experience of the U.S. airline market since deregulation.

PD April 1990. **TI** A Model of the Role of Brokerage in Financial Intermediation. **AA** Churchill College, Cambridge. **SR** University of Cambridge Economic Theory Discussion Paper: 148; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 23. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** G28, G21. **KW** Financial Markets. Regulation. Banking. Commercial Banks. Credit. Interest Rates.

AB This paper develops a simple model of a selective credit scheme in which regulated banks are required to direct their lending towards a target group, but in which the degree to which they do so can be only imperfectly monitored. In such a model there is a conflict between the government's desire to see the lending targets observed, and the maintenance of profitability. One way in which banks attempt to maintain profitability is to lend to brokers in the informal sector, who lend to final borrowers, benefiting from their better knowledge of individual credit worthiness and their ability to evade interest rate ceilings. The degree of lending to brokers is endogenously determined as a function of the interest rate ceiling and the profitability constraint.

Sedjo, Roger A.

PD January 1990. **TI** The Nation's Forest Resources. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-07; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 85. **PR** \$5.00 prepaid (U.S. funds only). **JE** 717, 631. **KW** Forests. Land Management. Timber.

AB This paper develops a history of the forest and forest land in the United States, how these resources have been used by the American people, and the factors influencing this use. The focus is primarily on the forest as a source of wood resources and potentially tillable land. One of the paper's main conclusions is that despite sporadically exploitative uses of the forest estate in the past, this estate appears more than adequate to meet current and growing demands for wood products in the absence of some global catastrophe. This state of affairs results from more efficient management practices adopted since 1920 and from the development of substitutes which have reduced growth in wood demand.

Sen, Arunava

TI Virtual Implementation in Nash Equilibrium. **AU** Abreu, Dilip; Sen, Arunava.

Sengupta, Jati K.

PD June 1990. **TI** Maximum Entropy in Applied Econometric Research. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 7-90; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 20. **PR** no charge. **JE** C11, C13. **KW** Estimation. Bayesian Analysis.

AB Recent approaches to maximum entropy principle of estimation are critically reviewed here from an applied econometric perspective in three directions: entropy and likelihood, entropy in Bayesian estimation and in two-person games. Several types of illustrative examples are reviewed from an applied viewpoint and it is argued that the maximum entropy method of estimation has great scope in applied econometric work due to its nonparametric nature and flexibility.

PD July 1990. **TI** Portfolio Efficiency Tests Based on Stochastic Dominance and Cointegration. **AU** Sengupta, Jati K.; Park, Hyung S. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 8-90; Working Papers Coordinator, Department of Economics, University of

California at Santa Barbara, Santa Barbara, CA 93106. **PG** 39. **PR** no charge. **JE** G11, G12, G14. **KW** Portfolio Choice. Market Returns. Mutual Funds.

AB Relative efficiency of alternative mutual fund portfolios is estimated and compared by means of stochastic dominance and co-integration tests. Varying market conditions such as bullish and bearish markets and volatility of temporal return variances are found to play a major role in the return generating process.

PD July 1990. **TI** The Asymmetry of Market Returns and Its Impact on the Mean Variance Frontier. **AU** Sengupta, Jati K.; Park, Hyung S. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 9-90; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 20. **PR** no charge. **JE** G14, G12, G11. **KW** Capital Market. Market Returns. Skewness. Asset Pricing Model. Portfolio Choice.

AB The hypothesis that the skewness and asymmetry have no significant impact on the mean variance frontier is found to be strongly violated by the monthly U.S. data over the period January 1965 through December 1974. This result raises serious doubts whether the common market portfolios such as S&P 500, value weighted and equal weighted returns can serve as suitable proxies for mean-variance efficient portfolios in the CAPM framework. This paper develops and applies a new test for assessing the impact of skewness.

PD July 1990. **TI** Rapid Growth in NICs in Asia: New Growth Theory and Its Lessons. **AA** University of California, Santa Barbara. **SR** University of California at Santa Barbara Department of Economics Working Paper: 10-90; Working Papers Coordinator, Department of Economics, University of California at Santa Barbara, Santa Barbara, CA 93106. **PG** 17. **PR** no charge. **JE** O53, O41. **KW** Growth Model. Developing Countries. Exports. Economic Growth.

AB This paper has attempted to estimate the impact of some of the key factors that explain the phenomenal growth of the recent NICs in the Asian Pacific Rim region. Scale economies, externality effects of exports and a successful policy of risk management are identified as the key factors.

Sentana, Enrique

TI Volatility and Links Between National Stock Markets. **AU** King, Mervyn; Sentana, Enrique; Wadhvani, Sushil.

Shah, Anwar

PD June 1990. **TI** An Alternative View of Tax Incidence Analysis for Developing Countries. **AU** Shah, Anwar; Whalley, John. **AA** Shah: The World Bank. Whalley: University of Western Ontario. **SR** National Bureau of Economic Research Working Paper: 3375; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 49. **PR** \$2.00. **JE** 121, 323. **KW** Developing Countries. Taxes. Tax Policy. Tax Reform.

AB This paper revisits the long-standing issue of the incidence of taxes in developing countries. Its central theme is that despite many decades of studies, tax incidence analyses for developing countries continue to be based upon the same shifting assumptions used in developed country studies, despite some obvious pitfalls. Taxes are assumed to be shifted forward to consumers, or backwards onto factor incomes, as has been

the case for developed country tax incidence work from Bowley and Stamp to Pechman and Okner. Developing countries typically have a much different non-tax policy and regulatory environment from developed countries, with higher protection, rationed foreign exchange, price controls, black markets, credit rationing and many other features. The paper argues that all these features can greatly complicate and even obscure the incidence effects of taxes in developing countries.

Shah, Chandra

TI Tutoring in Economic Statistics: The Monash Experience. **AU** King, Maxwell L.; Shah, Chandra; van Garderen, Kees Jan.

Sharfstein, David

TI The Role of Banks in Reducing Financial Distress in Japan. **AU** Hoshi, Takeo; Kashyap, Anil K.; Sharfstein, David.

Sharpe, Steven A.

PD October 1990. **TI** Switching Costs, Market Concentration, and Prices: The Theory and Its Empirical Implications in the Bank Deposit Market. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 138; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 31. **PR** no charge. **JE** 611, 312. **KW** Switching Costs. Market Structure. Differentiated Products. Banking. Bank Deposits.

AB As demonstrated by Kemperer (1987), if households face a cost of switching among brands of a differentiated good, the price markup over marginal cost is likely to vary in direct proportion to the extent of exogenous customer turnover and migration along the spectrum of differentiation. I generalize this theory to a world with arbitrary market structure and test it empirically using panel data on bank retail deposit interest rates. The extent of customer migration is found to have a significant negative influence on market prices (positive influence on deposit interest rates). In some cases, the magnitude of this influence is shown to depend substantially upon the level of market concentration.

Shavell, Steven

TI Enforcement Costs and the Optimal Magnitude and Probability of Fines. **AU** Polinsky, A. Mitchell; Shavell, Steven.

Sheffrin, Steven M.

PD February 1991. **TI** Can Brute Deterrence Backfire? Perceptions and Attitudes in Taxpayer Compliance. **AU** Sheffrin, Steven M.; Triest, Robert K. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 373; Department of Economics, University of California at Davis, Davis, California 95616-8578. **PG** 40. **PR** no charge. **JE** H26, H21, K42, D84. **KW** Tax Compliance. Tax Evasion. Taxes.

AB This paper investigates the role of attitudes and perceptions in taxpayers' compliance decisions. Results from estimation of a latent variables model of taxpayer behavior suggest that attitudes are important determinants of compliance. Having a negative attitude toward the tax system and perceiving other taxpayers as dishonest both significantly

increase the likelihood a person will evade taxes. Increases in the perceived probability of detection are found to decrease the likelihood of evasion. Surprisingly, personal knowledge of someone who has had difficulties with the IRS decreases the perceived probability of detection. Experimental results are presented which suggest that publicity concerning the overall extent of noncompliance may cause significant changes in taxpayer's perceptions of the probability of detection and the honesty of others.

Shiller, Robert J.

PD August 1990. **TI** Popular Attitudes towards Free Markets: The Soviet Union and the United States Compared. **AU** Shiller, Robert J.; Boycko, Maxim; Korobov, Vladimir. **AA** Shiller: Yale University. Boycko and Korobov: U.S.S.R. Academy of Sciences. **SR** Yale Cowles Foundation Discussion Paper: 952; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 72. **PR** no charge. **JE** 123. **KW** Free Market. Attitudes. Beliefs. Market Economy. Perestroika.

AB Random samples of the Moscow and New York populations were compared in their attitudes towards free markets by administering identical telephone interviews in the two countries in May, 1990. Although the Soviet respondents were somewhat less likely to accept exchange of money as a solution to personal problems, and their attitudes towards business were less warm, we found that the Soviet and American respondents were basically similar in some very important dimensions: in their attitudes towards fairness, income inequality, and incentives, and in their understanding of the workings of markets.

PD September 1990. **TI** Stock Prices and Bond Yields: Can Their Comovements be Explained in Terms of Present Value Models? **AU** Shiller, Robert J.; Beltratti, Andrea. **AA** Shiller: Yale University. Beltratti: University of Turin, Italy. **SR** Yale Cowles Foundation Discussion Paper: 953; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 37. **PR** no charge. **JE** 313, 131. **KW** Stock Market. Bond Market. Dividends. Stock Prices. Interest Rates. Discount Rates.

AB Real stock prices seem to overreact to changes in long-term interest rates. That is, real stock prices drop when long-term interest rates rise (and rise when they fall) more than would be implied by a rational expectations present value model where expectations are based on a vector autoregression. This overreaction is not associated with any overreaction to changes in the short-run inflation rate. Over the last century real stock prices have shown little reaction to changes in inflation rates, and according to the model they should show little reaction. These conclusions were reached from an analysis of annual data in the United States 1871 to 1989 and the United Kingdom 1918 to 1989.

Shilling, James D.

TI The Continued Interest Rate Vulnerability of Thrifts. **AU** Hendershott, Patric H.; Shilling, James D.

Shmeidler, David

TI A More Robust Definition of Subjective Probability. **AU** Machina, Mark J.; Shmeidler, David.

Sicherman, Nachum

TI Technological Change and the Careers of Older Workers. **AU** Bartel, Ann P.; Sicherman, Nachum.

Silvapulle, Paramsothy

PD August 1990. **TI** Testing Moving Average against Autoregressive Disturbances in the Linear Regression Model. **AU** Silvapulle, Paramsothy; King, Maxwell L. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 9/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 21. **PR** no charge. **JE** 211, 132. **KW** Lagrange Multiplier Test. Monte Carlo. Point Optimal Tests. Linear Regression Model.

AB This paper considers testing for MA(1) against AR(1) disturbances in the linear regression model. Tests investigated include approximate point optimal invariant (POI) tests, an asymptotic test of the second-order residual autocorrelation coefficient and a Lagrange multiplier (LM) test. A Monte Carlo experiment compares their small-sample performances. Of the asymptotic tests, the LM test has the most satisfactory sizes, while its rival has the better overall power. We find the approximate POI tests have superior size and power properties in comparison to the asymptotic tests. An approximate POI test is applied to a random walk model for Australian real interest rates.

Sinclair, Peter

PD September 1990. **TI** High does Nothing, and Rising is Worse: Carbon Taxes should keep Declining to Cut Harmful Emissions. **AA** Brasenose College, Oxford University and Queen's University. **SR** Oxford Applied Economics Discussion Paper: 99; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 16. **PR** not available. **JE** Q41, Q43, Q48. **KW** Taxes. Pollution. Energy. Gasoline.

AB It is often argued that greenhouse gas emissions should be curbed by taxes on activities that generate them. This paper continues the case for taxes on fossil fuels in the context of an infinite-horizon growth model. Under simple conditions, a constant tax rate on energy use is found to exert no real effect; energy taxes just squeeze rents, and have no impact on the time profile of extraction. Expectations of falling energy taxes are what is needed to reduce extraction rates, and postpone such adverse consequences that carbon emissions induce.

Sinn, Hans-Werner

PD October 1990. **TI** Taxation and the Cost of Capital: The "Old" View, the "New" View, and Another View. **AA** University of Munich. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 59; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 46. **PR** no charge. **JE** G32, G31, H25, M21. **KW** Taxation. Corporate Finance. Business Investment.

AB This paper is a critical survey and discussion of the recent literature on the tax effects on corporate finance and investment decisions. It corrects a common misinterpretation of the "new" view, emphasizes the cushion effect of financial optimization, dismisses the view that optimizing firms behave as if they maximized their cost of finance, studies the role of immature firms, questions the alleged support of the old view by the occurrence of share repurchases, comments on a

potential U.S. budget compromise, and suggests the idea of a Political Miller Equilibrium.

PD October 1990. **TI** A Simple Model of Useless Speculation. **AU** Sinn, Hans-Werner; Kemp, Murray C. **AA** Sinn: University of Munich. Kemp: University of New South Wales. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 60; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 24. **PR** no charge. **JE** D84, F31, D52, D51. **KW** Speculation. Incomplete Markets. Exchange Market.

AB The paper presents a general equilibrium model of a pure exchange economy with stochastic endowments in which speculation is profitable and stabilizes prices, but is useless from a welfare point of view. Reconciling the Siegel paradox with the theory of incomplete markets we show that banning speculation by closing the forward exchange market may increase social welfare.

PD October 1990. **TI** American Economic Policy and the International Debt Crisis. **AA** University of Munich. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 61; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 36. **PR** no charge. **JE** F21, F35, H25, E52. **KW** Debt Crisis. Monetary Policy. Tax Policy. Capital Flows.

AB This paper advances the hypothesis that the world debt crisis was mainly induced by the dramatic rise of U.S. interest rates in the first half of the eighties. It sees this rise in interest rates primarily as a result of a tight U.S. monetary policy and excessively large investment incentives provided by the 1981 U.S. tax reform. A welfare analysis shows that the policies could have increased the U.S. advantage from lending its capital abroad, had they been more moderately designed. The actual policies, however, were by far too strong to produce this result.

PD December 1990. **TI** Taxation and the Birth of Foreign Subsidiaries. **AA** University of Munich. **SR** John M. Olin Program for the Study of Economic Organization and Public Policy: 66; Department of Economics, Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ 08544. **PG** 41. **PR** no charge. **JE** F21, H25, F23. **KW** Foreign Investment. Multinational Firms. Tax Policy. Tax System.

AB The paper studies the influence of tax policy on foreign direct investment with a particular emphasis on immature subsidiaries. Among other things it shows that taxes on repatriations reduce the subsidiary's "birth weight," that lump sum taxes reduce its cost of capital, and that the possibility of postponement increases this cost. The paper rejects the popular weighted average specification of the subsidiary's cost of capital.

Skeels, Christopher L.

TI Some Further Exact Results for Structural Equation Estimators. **AU** Hillier, Grant H.; Skeels, Christopher L.

Smith, Jeremy

PD May 1990. **TI** On the Robustness of Barro's New Classical Unemployment Model. **AU** Smith, Jeremy; McAleer, Michael. **AA** Australian National University. **SR** Australian National University Working Paper in

Economics and Econometrics: 206; Australian National University, GPO BOX 4, Canberra, ACT 2601, AUSTRALIA. **PG** 31. **PR** not available. **JE** J64, C51, C52. **KW** Unemployment. Rational Expectations. Model Estimation.

AB In this paper we examine the robustness of Barro's New Classical model of unemployment, particularly the acceptance or rejection of the rational expectations hypothesis using both two- and three- equation systems, to various sample periods and methods of estimation. The methods of estimation used are 2-step OLS, 2-step OLS with correct standard errors using the same and different numbers of observations for the expectations and structural equations, full information maximum likelihood, and three variants of the computationally intensive bootstrap method. The empirical results for Barro's model change according to the sample period chosen, the different methods of estimation, and the different ways of computing the covariance matrix for purposes of inference.

TI A Monte Carlo Comparison of OLS, IV, FIML and Bootstrap Standard Errors in Linear Models with Generated Regressors. **AU** McAleer, Michael; Smith, Jeremy.

Smith, Peter

TI Simulating Local Government Expenditure Decisions and Welfare Changes under a Community Charge (Poll Tax) Regime. **AU** Barnett, Richard R.; Levaggi, Rosella; Smith, Peter.

Smith, Ron

TI On Error Correction Models: Specification, Interpretation, Estimation. **AU** Alogoskoufis, George S.; Smith, Ron.

Smith, V. Kerry

PD October 1989. **TI** Valuing Amenity Resources under Uncertainty: A Skeptical View of Recent Resolutions. **AA** North Carolina State University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-01; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 21. **PR** \$2.25 prepaid (U.S. funds only). **JE** 731, 024. **KW** Benefit Measures. Environment. Welfare Analysis.

AB Colby and Cory have argued forcefully that the choice of an appropriate benefit measure under uncertainty is largely resolved. In their view, the expected value of Graham's fair bet point is, for most cases, the correct measure of benefits resulting from improvements in the quality of an environmental resource or in the conditions of access to it under uncertainty. Moreover, Colby and Cory suggest that their conclusion is consistent with Graham's analysis. Both arguments are not correct.

PD October 1989. **TI** Estimating Recreation Demand using the Properties of the Implied Consumer Surplus. **AA** North Carolina State University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-02; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 26. **PR** \$2.25 prepaid (U.S. funds only). **JE** 024. **KW** Consumer Surplus. Recreation Demand. Benefit Measurement. Welfare Theory.

AB Consumer surplus estimates are random variables. While they are generally recognized as stochastic, little attention was given to their properties prior to Bockstael and Strand's (1987) evaluation of conventional practices for using recreation demand models in benefit measurement. Their paper, as well as all the research it stimulated, adopted a similar strategy, namely to judge the methods for estimating demand or random utility models based on the properties of their respective consumer surplus estimates. This paper proposes a different strategy, to define estimators based on the properties of their implied consumer surplus estimates.

PD November 1989. **TI** Household Production Functions and Environmental Benefit Estimation. **AA** North Carolina State University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-04; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 65. **PR** \$2.25 prepaid (U.S. funds only). **JE** 024, 022. **KW** Household Behavior. Benefit Estimation. Consumer Preferences. Consumer Demand.

AB Observed behavior combined with maintained hypotheses about people's motivations has been the primary basis for economists' inferences about consumer preferences. Because these maintained hypotheses arise from a constrained maximization model, we usually focus on how changes in the parameters of the constraint(s) influence observed choices. When the objects of choice are available to consumers under a variety of access conditions, many without directly observable prices, the task of describing consumer demand becomes more complex, especially with attempts to measure the values people place on environmental resources. In these circumstances, economists naturally tend to add to the maintained assumptions embedded in the modeling strategy used to estimate these values. This paper is about one such strategy that adds information by specifying structural connections between the environmental services of interest and other private goods.

PD December 1989. **TI** Can We Measure the Economic Value of Environmental Amenities? **AA** North Carolina State University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-06; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 39. **PR** \$2.25 prepaid (U.S. funds only). **JE** 722, 635. **KW** Travel Cost. Hedonic Models. Property Value. Environment. Recreation Demand.

AB This paper reviews the conceptual basis for valuing environmental amenities and discusses travel cost recreation demand and hedonic property value models as strategies that rely on observed choice to measure use values for environmental resources. The growing importance of measuring nonuse values is noted because people experience satisfaction from environmental resources without actually using them. Nonuse values do not require a choice, so measuring them requires analyzing other behavioral indicators: conversation and the adaptations people make as they learn. Recent advances are described in using surveys as conversational sources of information about people's values within a contingent valuation framework.

TI An Economic Appraisal of the DC Appeals Court Ruling on the DOT Regulations for Natural Resource Damage Assessments. **AU** Kopp, Raymond J.; Portney, Paul R.; Smith, V. Kerry.

TI Risk Communication and Attitude Change: Taiwan's National Debate over Nuclear Power. **AU** Liu, Jin Tan; Smith, V. Kerry.

Snell, Andrew

TI Structural Shifts in the Manufacturing Export Performance of OECD Economies. **AU** Landesmann, Michael; Snell, Andrew.

Snyder, Ralph D.

PD September 1990. **TI** Why Kalman Filter? **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 12/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 8. **PR** no charge. **JE** 211. **KW** Time Series Analysis. Forecasting. Exponential Smoothing. Maximum Likelihood Estimation. State Space Model.

AB In this paper the Kalman filter and regression approaches for estimating linear state space models are compared. It is argued that the Kalman filter is no more efficient from the computational point of view, is relatively more complex and hence more obtruse, and that as a consequence its central role in the smoothing, estimation and prediction of time series is questionable.

PD November 1990. **TI** Maximum Likelihood Estimation: A Prediction Error Approach. **AA** Monash University. **SR** Monash Department of Econometrics Working Paper: 15/90; Department of Econometrics, Monash University, Clayton, Victoria 3168, AUSTRALIA. **PG** 10. **PR** no charge. **JE** 211, 132. **KW** Maximum Likelihood Estimation. Kalman Filter. Time Series Analysis. Linear Regression Model.

AB In this paper the problem of computing maximum likelihood estimates of the parameters of linear statistical models is considered. The proposed approach relies on the prediction error decomposition of the likelihood function. A distinctive feature is that the required prediction errors are obtained using conventional linear least squares methods rather than the more usual Kalman filter. More specifically, it is shown that the orthogonalization procedure based on fast Givens transformations, used to obtain the triangular representation of the normal equations, automatically yields the one-step ahead prediction errors and their mean squared errors without additional side calculations.

Song, Lina

TI The Spatial Contribution to Income Inequality in Rural China. **AU** Knight, John B.; Song, Lina.

Sonstelie, Jon

TI Rent-Seeking and the Common Pool. **AU** Deacon, Robert T.; Sonstelie, Jon.

Spiegel, Matthew

TI An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew.

TI An Experimental Comparison of Dispute Rates in Alternative Arbitration Systems. **AU** Ashenfelter, Orley; Currie, Janet; Farber, Henry S.; Spiegel, Matthew.

Spitzer, Matthew L.

TI The Divergence between Willingness-To-Pay and Willingness-To-Accept Measures of Value. **AU** Hoffman, Elizabeth; Spitzer, Matthew L.

Sprague, Alison

PD November 1990. **TI** The Duration to Marriage: An Empirical Analysis. **AA** Peat, Marwick and McClintock, London. **SR** Oxford Applied Economics Discussion Paper: 104; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 29. **PR** not available. **JE** J12, J11. **KW** Employment. Marriage. Demographics. Labor Supply.

AB This paper presents a hazard rate analysis of the duration of time from leaving full-time continuous education to marriage. A brief survey of existing research into marriage is presented. Logistic hazard models are estimated using individual data from the 1980 Women and Employment Survey. Explanatory variables are age, potential earnings on leaving education and social class. Models are estimated for women in aggregate and cohort. The findings suggest that high potential earnings at the time of leaving full-time continuous education increase the duration to (lower the risk of) marriage. Age reduces the duration of marriage. No consistent social class effects are found.

PD November 1990. **TI** An Empirical Analysis of Birth Spacing. **AA** Peat, Marwick and McClintock, London. **SR** Oxford Applied Economics Discussion Paper: 103; Institute of Economics and Statistics, St. Cross Building Manor Road, Oxford OX1 3UL, UNITED KINGDOM. **PG** 46. **PR** not available. **JE** J13, J11, J22. **KW** Fertility. Children. Cohorts. Demographics. Employment.

AB Retrospective information on married women from the 1980 Women and Employment Survey is transformed into duration data for first, second and third births. Logistic hazard models are estimated for the full sample and cohort groups. Covariates entered are age, potential earnings and social class variables. The results suggest that high potential earnings delay childbirth, shorten the interval between first and second birth but have no effect on the risk of a third birth. Age effects are positive for all duration but social class effects are found for the second birth model only.

Staiger, Robert W.

PD March 1990. **TI** The Effect of Domestic Antidumping Law in the Presence of Foreign Monopoly. **AU** Staiger, Robert W.; Wolak, Frank A. **AA** Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-8; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 40. **PR** not available. **JE** K33, F13, F12. **KW** International Trade. Antidumping Law. Trade Agreements.

AB We consider the effects of antidumping law when utilized by competitive domestic petitioners against a foreign monopolist. The foreign monopolist must set capacity before the realization of random foreign demand, but can reduce the cost of holding excess capacity in periods of slack foreign demand by dumping on the domestic market. With the introduction of antidumping law in the domestic market, domestic firms are shown to file suits in periods of sufficiently slack foreign demand, reducing the volume of imports directly in such periods. Moreover, this occasional filing activity raises

the cost to the foreign monopolist of holding excess capacity and, in so doing, results in a scaling back foreign capacity.

PD June 1990. **TI** Rules versus Discretion in Trade Policy: An Empirical Analysis. **AU** Staiger, Robert W.; Tabellini, Guido. **AA** Staiger: Stanford University. Tabellini: University of California, Los Angeles. **SR** National Bureau of Economic Research Working Paper: 3382; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 49. **PR** \$2.00. **JE** F13. **KW** Tariffs. Commercial Policy. Trade Negotiations. Trade Policy.

AB We test empirically for evidence that government tariff-setting behavior depends on the degree of discretion with which policy makers are endowed. We do this by studying government tariff choices under two distinct environments. One environment is that of tariffs set under the Escape Clause (section 201 of the U.S. Trade Act of 1974). We argue that these decisions afford the government with ample opportunity to reoptimize, and with correspondingly little ability to commit. The other environment is the Tokyo Round of GATT negotiations and the determination of the set of exclusions from the general formula cuts. We argue that these decisions provided the government with a much diminished opportunity to reoptimize, and with a correspondingly greater ability to commit. Comparing decisions made in these two environments allows us to ask whether the degree of policy discretion has a measurable impact on trade policy decisions. Our findings suggest that it does.

PD July 1990. **TI** Collusive Pricing with Capacity Constraints in the Presence of Demand Uncertainty. **AU** Staiger, Robert W.; Wolak, Frank A. **AA** Staiger: Stanford University and National Bureau of Economic Research. Wolak: Stanford University. **SR** Stanford Hoover Institute Working Paper in Economics: E-90-15; Domestic Studies Program Working Paper Series, Hoover Institution, Stanford University, Stanford, CA 94305. **PG** 63. **PR** not available. **JE** L13, D43, D21. **KW** Pricing. Capacity Constraints. Collusion. Market Share.

AB We explore the response of collusive prices to changing demand conditions when firms operate under capacity constraints in the presence of demand uncertainty. We find support for the conventional view that periods of low demand lead through the emergence of excess capacity to a breakdown of collusive pricing. We also find that the nature of price wars depends on the degree of excess capacity in the industry; while small amounts of excess capacity can lead firms to engage in "mild" price wars characterized by cooperative price reductions and market share stability, more "severe" price wars characterized by noncooperative price undercutting and market share instability can emerge if excess capacity is sufficiently great. Finally, our results lend support to the view that market share instability is a symptom of ineffective collusion.

Stalon, Charles G.

PD November 1989. **TI** Is Regulation what Regulators Do? **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-05; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 21. **PR** \$5.00 prepaid (U.S. funds only). **JE** 613. **KW** Regulation.

AB The tasks of economic regulators are many and complex.

By standards frequently supported by economists, these tasks have seldom been accomplished well. There are many reasons for these failures, including the decision procedures used by economic regulators that have evolved over recent decades, partly imposed by legislators and courts and partly generated by regulators themselves. The creation and existence of these procedures reflects the political need for "fairness" in the controversial distributional aspects of economic regulation, but the emphasis on procedural "fairness" becomes a substitute for substantive objectives.

TI Emissions Trading in the Electric Utility Industry. **AU** Bohi, Douglas R.; Burtraw, Dallas; Krupnick, Alan J.; Stalon, Charles G.

Stavins, Robert N.

PD December 1989. **TI** Unintended Impacts of Public Investments on Private Decisions: The Depletion of Forested Wetlands. **AU** Stavins, Robert N.; Jaffe, Adam B. **AA** Stavins: Harvard University and Resources for the Future. Jaffe: Harvard University. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-09; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 35. **PR** \$2.25 prepaid (U.S. funds only). **JE** 717, 322, 321, 721. **KW** Land Use. Wetlands. Public Infrastructure. Flood Control.

AB By affecting relative economic returns, public infrastructure investments can induce major changes in private land use. We find that 30% of forested wetland depletion in the Mississippi valley has resulted from private decisions induced by Federal flood control projects, despite explicit Federal policy to preserve wetlands. Our model aggregates individual land use decisions using a parametric distribution of unobserved land quality; dynamic simulations are used to quantify the impacts on wetlands of Federal projects and other factors.

PD December 1989. **TI** Alternative Renewable Resource Strategies: A Simulation of Optimal Use. **AA** Harvard University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-10; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 33. **PR** \$2.25 prepaid (U.S. funds only). **JE** 721, 722, 717. **KW** Wetlands. Forests. Conservation. Natural Resources.

AB The depletion of forested wetlands is a pressing environmental problem. Concern has increased about losses of tropical rain forests, but forested wetland losses in the United States have also been severe. Has wetland depletion and conversion to agricultural crop land been excessive? Answering this question requires a dynamic analysis of resource exploitation in the presence of negative environmental consequences. A model of socially optimal wetland use is developed, the structure and parameters of which bear a well defined relationship to those emerging from a private market model of wetland exploitation. This relationship provides a basis for internalizing environmental externalities for identifying the optimal resource exploitation strategy. The empirical analysis focuses on the area of severest wetland losses in the U.S., the Lower Mississippi Alluvial Plain.

PD January 1990. **TI** Innovative Policies for Sustainable Development in the 1990s: Economic Incentives for

Environmental Protection. **AA** Harvard University and Resources for the Future. **SR** Resources for the Future Quality of the Environment Division Discussion Paper: QE90-11; Quality of the Environment Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 30. **PR** \$2.25 prepaid (U.S. funds only). **JE** 722, 721, 731, 613. **KW** Environmental Policy. Regulation. Conservation. Environment.

AB The U.S. and the world at large continue to face major environmental threats -- both ongoing problems and newly recognized ones. Although conventional regulatory policies have sometimes worked well, they have tended to pit economic and environmental goals against each other, producing paralysis rather than progress. As the decade of the 1980s draws to a close, increased attention has been given by political leaders on both sides of the Atlantic to a promising breed of new policies which recognize market forces, not only as part of the problem, but also as a potential part of the solution. Economic-incentive approaches to environmental protection can enable nations to achieve their environmental goals at lower overall cost to society. This paper briefly describes, in general terms, these five types of policies, and provides some examples of the previous applications in the U.S.

Stegeman, Mark

PD May 1990. **TI** Deleting Strictly Dominated Strategies. **AA** University of North Carolina, Chapel Hill. **SR** University of North Carolina Working Paper Series: 90-6; Department of Economics, CB #3305, Gardner Hall, University of North Carolina, Chapel Hill, NC 27599-3305. **PG** 43. **PR** none. **JE** 026. **KW** Infinite Games. Extensive Games. Game Theory. Incomplete Information. Dominated Strategies.

AB The first part of this paper shows that the order of deletion of strictly dominated strategies (DSDS) does not affect the residual game in finite normal form games (generalizing a result of Kalai and Zemel), but order does matter in some infinite games. Ambiguities in infinite games can be avoided by placing a weak bound on the rate of deletion. The second part of the paper extends DSDS to extensive forms, including games of incomplete information. The formulation excludes deletions based upon the assumption that a player's beliefs at different information sets are consistent with Bayesian updating of the same prior.

Stein, Jeremy C.

TI How Risky is the Debt in Highly Leveraged Transactions? Evidence from Public Recapitalizations. **AU** Kaplan, Steven N.; Stein, Jeremy C.

Stiglitz, Joseph E.

TI Asymmetric Information and the New Theory of the Firm: Financial Constraints and Risk Behavior. **AU** Greenwald, Bruce C.; Stiglitz, Joseph E.

Stock, James H.

TI Efficient Windows and Labor Force Reduction. **AU** Lumsdaine, Robin L.; Stock, James H.; Wise, David A.

PD June 1990. **TI** Business Cycle Properties of Selected U.S. Economic Time Series, 1959-1988. **AU** Stock, James H.; Watson, Mark W. **AA** Stock: Harvard University. Watson: Northwestern University. **SR** National Bureau of

Economic Research Working Paper: 3376; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 107. **PR** \$2.00. **JE** 133, 131, 132. **KW** Business Cycle. Forecasting. Economic Fluctuations. Leading Indicators.

AB This paper catalogs the business cycle properties of 163 monthly U.S. economic time series over the three decades from 1959 through 1988. Two general sets of summary statistics are reported. The first set measures the comovement of each individual time series with a reference series representing real economic activity. These statistics focus on comovements at business cycle horizons. The second set of statistics examines the predictive content of each of the series for aggregate activity, relative to different sets of conditioning (or predictive) variables. These statistics are constructed and presented in a way that facilitates comparisons across series and across conditioning sets. They also provide new lists of leading indicators based on predictive content for overall economic activity. Some of the results confirm previously recognized empirical regularities, while others provide new or different insights into the business cycle properties of various series.

Stone, Gary

TI Inflation Expectations Surveys as Predictors of Inflation and Behavior in Financial and Labor Markets. **AU** Englander, A. Steven; Stone, Gary.

Stratton, Leslie S.

PD October 1990. **TI** The Role of Employment Opportunities in Determining Employment Status. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-31; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 26. **PR** no charge. **JE** J64, J22, J23, J71. **KW** Unemployment. Labor Supply. Labor Demand. Discrimination. Employment.

AB This study uses data from the March 1988 Current Population Survey to decompose the employment probability of white and black men into that part attributable to differences in employment preferences and that part attributable to differences in the ability to obtain employment given that it is desired. Both are found to vary considerably with individual and labor market characteristics, but differences in these characteristic values explain less than half of the racial difference in employment probabilities. The remainder can only be explained by unobservable or racial differences.

PD October 1990. **TI** Racial Differences in Employment Probabilities. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-32; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 21. **PR** no charge. **JE** J22, J23, J64, J71. **KW** Discrimination. Unemployment. Search Model. Labor Supply.

AB A sequential decision model is developed in which individuals first decide whether or not they would like to work and then, if they choose to work, search with varying rates of success. Empirical results reveal that standard labor supply functions overstate the effect many variables have upon preferences, as employment opportunities are often limited by the same factors. Having less education, less experience, more nonlabor income, and/or (for men) a high local unemployment rate reduces not only employment preference but also the ability to obtain employment. Employment opportunities are an

important determinant of employment status.

Stuhr, David P.

TI A New Look at U.S. Banking Strategy and Structure in the 1980s. **AU** Korobow, Leon; Stuhr, David P.

Sturm, Roland

TI Estimating Heterogeneity of Fecundity among Chinese Couples. **AU** Zhang, Junsen; Sturm, Roland.

Summers, Lawrence

TI The Stock Market, Profit and Investment. **AU** Blanchard, Olivier Jean; Rhee, Changyong; Summers, Lawrence.

Svensson, Lars E. O.

PD June 1990. **TI** The Term Structure of Interest Rate Differentials in a Target Zone: Theory and Swedish Data. **AA** University of Stockholm. **SR** National Bureau of Economic Research Working Paper: 3374; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 44. **PR** \$2.00. **JE** 431, 313, 411. **KW** Term Structure. Interest Rates. Exchange Rates. Sweden. **AB** The term structure of interest rate differentials is derived in a model of a small open economy with a target zone exchange rate regime. The target zone is modeled as a regulated Brownian motion. The interest rate differentials are computed as the solution to a parabolic partial differential equation with derivative boundary conditions, both via a Fourier-series analytical solution and via a direct numerical solution. Several specific properties of the term structure of interest rate differentials are derived. For instance, for a given time to maturity the interest rate differential is decreasing in the exchange rate, and for a given exchange rate the interest rate differential's absolute value and its instantaneous variability are both decreasing in the time to maturity. Devaluation/realignment risks are incorporated and imply upward shifts of the interest rate differentials.

PD June 1990. **TI** The Simplest Test of Target Zone Credibility. **AA** Institute for International Economic Studies, Sweden. **SR** National Bureau of Economic Research Working Paper: 3394; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 16. **PR** \$2.00. **JE** F31, E52, E42. **KW** Exchange Rates. Capital Mobility. Interest Rates. Devaluation.

AB A credible target zone exchange rate regime with a given exchange rate band implies bounds on the amount of depreciation and appreciation of the domestic currency. This implies, for given foreign interest rates, bounds on the domestic-currency rate of return on foreign investment: a rate-of-return band for each time to maturity. Whether domestic interest rates are outside these rate-of-return bands can be used as a simple test of exchange rate credibility, under the assumption of sufficient international capital mobility. This test is applied to the Swedish target zone during February 1986-February 1990. Under the additional assumption of uncovered interest rate parity, an equivalent test is whether expected future exchange rates are outside the exchange rate band. In addition, the expected future exchange rates are used to give an estimate of the probability of future devaluations.

Swamy, P. A. V. B.

PD December 1990. **TI** Some Problems with Identification in Parametric Models. **AU** Swamy, P. A. V. B.; Mehta, J. S.; von zur Muehlen, P. **AA** Swamy and von zur Muehlen: Board of Governors of the Federal System. Mehta: Temple University. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 144; C/O Jeffrey C. Fuhrer, Mail Stop 61, Federal Reserve Board, Washington, DC 20551. **PG** 18. **PR** no charge. **JE** 211. **KW** Simultaneous Equations Model. Identification. Regression Models.

AB A necessary and sufficient condition stated in econometric textbooks for the identifiability of coefficients in a linear simultaneous equations system is insufficient in one common form, irrelevant in another.

Swinkels, Jeroen

TI Viscous Population Equilibria. **AU** Myerson, Roger B.; Pollock, Gregory B.; Swinkels, Jeroen.

Tabellini, Guido

TI Seigniorage and Political Instability. **AU** Cukierman, Alex; Edwards, Sebastian; Tabellini, Guido.

TI Rules versus Discretion in Trade Policy: An Empirical Analysis. **AU** Staiger, Robert W.; Tabellini, Guido.

Tamura, Robert F.

TI Human Capital, Fertility, and Economic Growth. **AU** Becker, Gary S.; Murphy, Kevin M.; Tamura, Robert F.

Telmer, Chris I.

TI Accounting for Forward Rates in Markets for Foreign Currency. **AU** Backus, David K.; Gregory, Allan W.; Telmer, Chris I.

Thalmann, Philippe

PD September 1990. **TI** Le Marche Du Logement Aux Etats-Unis. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9013; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 42. **PR** no charge. **JE** 932. **KW** Housing. Housing Policy. Housing Economics. **AB** Paper in French.

PD September 1990. **TI** Analyse Theorique de l'Evolution du Prix du Sol. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9014; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 38. **PR** no charge. **JE** 717, 931. **KW** Land Prices. Land Market. Real Estate.

AB Paper in French.

Toder, Eric

TI Revenue and Welfare Implications of a Capital Gains Tax Cut when Gains Realizations and Dividend Payouts are Endogenous. **AU** Hendershott, Patric H.; Toder, Eric; Won, Yunhi.

Torres, Ricard

PD September 1990. **TI** Stochastic Dominance. **AA** Northwestern University and Universitat Pompeu Fabra, Spain. **SR** Northwestern Center for Mathematical Studies in Economics and Management Science Working Paper: 905; Northwestern University, 2001 Sheridan Road, 3-014 Leverone Hall, Evanston, IL 60208-2014. **PG** 39. **PR** \$3.00 in the U.S.A. or Canada; \$5.00 via international mail. **JE** C10, C73. **KW** Stochastic Dominance. Stochastic Models. Weak Convergence. Topology.

AB We develop in this paper a systematic study of the stochastic dominance ordering in spaces of measures. We collect and present in an orderly fashion results that are spread out in the Applied Probability and Mathematical Economics literature, and extend most of them to a somewhat broader framework. Several original contributions are made on the way. We provide a sharp characterization of conditions that permit an equivalent definition of stochastic dominance by means of continuous and monotone functions. When the preorder of the original space is closed, we offer an extremely simple equivalent characterization of stochastic dominance, a result of which we have found no parallel in the literature. We develop original methods that shed light into the inheritance of the antisymmetric property by the stochastic dominance ordering. We study how the topological properties of the preorder translate to the stochastic dominance preorder.

Trebilcock, Michael J.

TI The Medical Malpractice Crisis: A Comparative Empirical Perspective. **AU** Dewees, Donald N.; Trebilcock, Michael J.; Coyte, Peter C.

Trejo, Stephen J.

TI Immigrant Participation in the Welfare System. **AU** Borjas, George J.; Trejo, Stephen J.

Trela, Irene

PD June 1990. **TI** Taxes, Outward Orientation, and Growth Performance in Korea. **AU** Trela, Irene; Whalley, John. **AA** University of Western Ontario. **SR** National Bureau of Economic Research Working Paper: 3377; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 35. **PR** \$2.00. **JE** 121, 323, 226. **KW** Korea. Tax Policy. Developing Countries. Growth Model.

AB This paper both discusses and evaluates the role of tax policy in the Korean growth process from the early 1960s to the late 1980s. It begins by reviewing the evolution of Korean policy over this developmental sequence emphasizing three distinct regime switches, and the tax policies which were part of them. It then presents an analytical framework for quantitative assessment of the contribution of tax policies to this growth through induced intersectoral resource transfers and impacts on effort and labor supply in agriculture and manufacturing sectors. What emerges from the model calculations is that tax policy has played a relatively modest role in Korean growth and that one should look outside of tax policy for the main factors underlying strong Korean growth.

Tridimas, George

TI Public Expenditure Growth in Greece and Portugal: Wagner's Law and Beyond. **AU** Courakis, Anthony S.; Moura-Roque, Fatima; Tridimas, George.

Triest, Robert K.

TI Can Brute Deterrence Backfire? Perceptions and Attitudes in Taxpayer Compliance. **AU** Sheffrin, Steven M.; Triest, Robert K.

Trivedi, Pravin K.

TI Conditional Moment Tests with Explicit Alternatives. **AU** Cameron, A. Colin; Trivedi, Pravin K.

TI The Information Matrix Test and Its Implied Alternative Hypotheses. **AU** Cameron, A. Colin; Trivedi, Pravin K.

Trosset, Michael W.

TI Nonnested Hypotheses Testing in Applied Economics. **AU** Sands, Barbara N.; Trosset, Michael W.

Tuckman, Bruce

TI Sinking Fund Prepurchases and the Designation Option. **AU** Kalotay, Andrew; Tuckman, Bruce.

PD July 1990. **TI** Arbitrage with Holding Costs: A Utility-Based Approach. **AU** Tuckman, Bruce; Vila, Jean-Luc. **AA** Tuckman: New York University. Vila: Massachusetts Institute of Technology. **SR** New York University Salomon Brothers Center Working Paper: S-90-19; 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** 39. **PR** not available. **JE** 311, 313, 022. **KW** Arbitrage. Portfolios. Investment. Transaction Costs. Capital Markets.

AB This paper analyzes an investment opportunity which constitutes an arbitrage in the sense that an investor who faces no transaction costs could realize an infinite, riskless profit. The presence of per unit time holding costs transforms the arbitrage into a risky investment opportunity. Solving for the optimal holdings of the arbitrage portfolio reveals that: 1) Investors will hold a finite position if the potential gains are large enough, 2) Investors will take a position even with a negative expected return since any future losses will be accompanied by greater arbitrage opportunities, and 3) Position size increases or decreases in the variance of arbitrage returns depending on the size of the potential.

Tullock, Gordon

PD November 1990. **TI** Hawks, Doves and Free Riders. **AA** University of Arizona. **SR** University of Arizona Economics Working Paper: 90-35; Department of Economics, Bldg #23, University of Arizona, Tucson, AZ 85721. **PG** 27. **PR** no charge. **JE** A12. **KW** Behavior Patterns. Biology. Economic Environment.

AB The hawk-dove equilibrium is a biological phenomenon in which birds with two different behavior patterns come into equilibrium with each other. The theme of the article is that similar equilibria exist in many cases in the economic world. There are many different strategies for playing the market, for example, and they're all in equilibrium. Similarly, there is an equilibrium between the careful shoppers who devote a lot of energy to shopping and those shoppers who do not. These equilibria have been little studied, and, in fact, they normally lead to situations which violate the law of one price.

Tuomala, Matti

TI Optimal Non-Linear Income Taxation for the Alleviation

of Income Poverty. **AU** Kanbur, Ravi; Keen, Michael; Tuomala, Matti.

Uctum, Merih

TI National Insolvency: A Test of the U.S. Intertemporal Budget Constraint. **AU** Wickens, Michael; Uctum, Merih.

Unal, Haluk

TI Capital Positions of Japanese Banks. **AU** Kane, Edward J.; Unal, Haluk; Demirguc-Kunt, Asli.

van der Ploeg, Frederick

TI Perceived Constraints for Dutch Unemployment Policy. **AU** Keuzenkamp, Hugo A.; van der Ploeg, Frederick.

van Garderen, Kees Jan

TI Tutoring in Economic Statistics: The Monash Experience. **AU** King, Maxwell L.; Shah, Chandra; van Garderen, Kees Jan.

van Wijnbergen, Sweder

PD August 1990. **TI** Trade Reform, Policy Uncertainty and the Current Account; A Non-Expected Utility Approach. **AA** World Bank. **SR** Centre for Economic Policy Research Discussion Paper: 441; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 10. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** F13, E21. **KW** Trade Policy. Consumption. Savings.

AB Rapid trade liberalization is often followed by a decline in private savings, although permanent changes in trade policy do not affect intertemporal prices and should thus leave private savings unaffected. But a positive probability of future policy reversal lowers the consumption rate of interest and thus will increase current consumption. Furthermore, to separate the impact of shifts in intertemporal relative prices and of risk aversion, we use the Ordinal Certainty Equivalence approach. We establish that trade policy uncertainty per se will further reduce savings if: (a) there is positive risk aversion; (b) the intertemporal substitution elasticity exceeds one.

Vartiainen, Juhana

TI Social Corporatism and Long-Term Economic Performance. **AU** Landesmann, Michael; Vartiainen, Juhana.

Vella, Francis

PD June 1990. **TI** Non-Wage Benefits in a Simultaneous Model of Wages and Hours: Labor Supply Functions of Young Females. **AA** Rice University and Monash University. **SR** Monash Department of Econometrics Working Paper: 6/90; Monash University. Clayton, Victoria 3168, Australia. **PG** 37. **PR** no charge. **JE** 824, 822, 821, 323. **KW** Wages. Employment. Labor Supply. Taxes.

AB This paper examines the estimation of a simultaneous model of hours and wages. We argue the relationship between weekly hours worked and the hourly wage is due to increasing marginal tax rates. As the total wage increases, due to increasing hours, employers and employees avoid taxation by substituting wages with non-taxable non-wage benefits. This is attenuated by labor legislation entitling employees to employer provided benefits. We estimate a wage that is independent of any benefit effect and employ it in the labor

supply functions. An estimator is presented for the wage/hours market locus and the structural labor supply function. An application to the data examined Moffitt (1984) supports the validity of the proc.

PD June 1990. **TI** A Simple Estimator for Simultaneous Models with Censored Endogenous Regressors. **AA** Rice University and Monash University. **SR** Monash Department of Econometrics Working Paper: 7/90; Monash University. Clayton, Victoria 3168, Australia. **PG** 42. **PR** no charge. **JE** 211, 212, 821. **KW** Censored Regression. Sample Selection Bias. Exogeneity. Compensating Differentials. **AB** This paper presents a simple two step estimator for models with censored endogenous regressors and sample selection bias. The approach unifies the literature on censored endogenous regressors and sample selection bias and provides some extensions. The procedure relies upon the use of generalized residuals to adjust for the inconsistency caused by the endogeneity of the censored regressors. The methodology is very simple and easily implementable with existing computer programs. The paper also provides two tests of weak exogeneity. Two empirical examples, based on issues from the labor economics literature, indicate that the estimation procedure and the tests perform we.

Vila, Jean-Luc

TI Arbitrage with Holding Costs: A Utility-Based Approach. **AU** Tuckman, Bruce; Vila, Jean-Luc.

Vinals, Jose

PD March 1990. **TI** Spain and the "EEC cum 1992" Shock. **AA** Banco De Espana. **SR** Centre for Economic Policy Research Discussion Paper: 388; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, UNITED KINGDOM. **PG** 94. **PR** 2.00 pounds (\$4.00). **JE** 423, 431, 133, 321, 311. **KW** Comparative Advantage. Scale Economies. Interest Rates. Spain. Fiscal Policy. Monetary Policy.

AB This paper provides a conceptual framework to analyze the main economic issues raised by Spain's integration into the EEC and by the vast economic reforms associated with the 1992 European Internal Market. The "EEC cum 1992" event can be described as a major anticipated permanent shock with both real and financial consequences. In the case of Spain it is found that the country can enjoy significant potential long-term gains from full integration into the EEC through exploitation of its comparative labor cost advantage and existing scale and scope economies. Nevertheless, for these potential long-term gains to be made effective while minimizing short- and medium-term adjustment costs, it is critical that the functioning of the labor market be improved, that long-term capital markets be further developed and that fiscal policy share with monetary policy the burden of achieving internal and external balance.

von Ungern-Sternberg, Thomas

TI To Patent or to Publish. **AU** Levi-Mazloun, Daniel; von Ungern-Sternberg, Thomas.

von zur Muehlen, P.

TI Some Problems with Identification in Parametric Models. **AU** Swamy, P. A. V. B.; Mehta, J. S.; von zur Muehlen, P.

Voss, Graham M.

TI The Term Structure of Interest Rates: Departures from Time-Separable Expected Utility. **AU** Gregory, Allan W.; Voss, Graham M.

Wadhvani, Sushil

TI Volatility and Links Between National Stock Markets. **AU** King, Mervyn; Sentana, Enrique; Wadhvani, Sushil.

Waidmann, Timothy

TI Disability Transfers and the Labor Force Attachment of Older Men: Evidence from the Historical Record. **AU** Bound, John; Waidmann, Timothy.

Walker, James M.

TI Group Size and the Voluntary Provision of Public Goods: Experimental Evidence Utilizing Large Groups. **AU** Isaac, R. Mark; Walker, James M.; Williams, Arlington W.

Walker, Mark

TI Nonmanipulable Voting Schemes when Participants' Interests are Partially Decomposable. **AU** Moreno, Diego; Walker, Mark.

Walls, Margaret A.

PD February 1990. **TI** From Bad to Worse: Impacts of the 1986 Oil Price Collapse. **AU** Walls, Margaret A.; Jones, Andrew S. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-08; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 33. **PR** \$5.00 prepaid (U.S. funds only). **JE** 723, 632, 616, 611. **KW** Oil Industry. Oil Prices. Energy.

AB While depressed oil prices in the latter half of the 1980s have benefited the oil-consuming sectors of the U.S. economy, the domestic petroleum industry has not been quite so fortunate. The impact of the price crash is evident in the U.S. oil companies' fundamental restructuring since 1986. A change in industry strategy, for both independents and majors, has resulted in a reduction and reorientation of exploration, development, and production activities. This paper examines the specific effects of the price decline on the energy-producing sector, especially with regard to the necessary structural change adopted in their implications for the future of the U.S. petroleum industry.

PD March 1990. **TI** An Analysis of Oil and Gas Supply Modeling Techniques and a Survey of Offshore Supply Models. **AA** Resources for the Future. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-09; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 41. **PR** \$5.00 prepaid (U.S. funds only). **JE** 632, 723, 721. **KW** Oil. Petroleum. Natural Gas. Energy.

AB This report surveys the literature on empirical oil and gas supply modeling techniques. These techniques are categorized as either geologic/engineering, econometric, or "hybrid" -- the last being a combination of geologic and econometric techniques. The geologic/engineering models are further disaggregated into play analysis models and discovery process models. The strengths and weaknesses of each of the models are discussed. The report concludes with a discussion of how

these techniques have been applied to offshore oil and gas supply.

Walsh, Janet

PD March 1990. **TI** Regional Earnings and Pay Flexibility. **AU** Walsh, Janet; Brown, William. **AA** University of Cambridge. **SR** University of Cambridge DAE Working Paper: 9008; Department of Applied Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DE, UNITED KINGDOM. **PG** 34. **PR** \$4.00 (2.00 pounds); checks payable to University of Cambridge. **JE** J53, R11, M10. **KW** Collective Bargaining, Regional Economies, Management-Union Relations, England.

AB This paper examines survey evidence on pay bargaining in the private sector to ascertain whether local demand-supply factors have been influential in the restructuring of British bargaining arrangements. It is argued that the long term trend towards decentralized pay bargaining has not been motivated by the desire of employers to exploit the pay contours of local labor divisions irrespective of where the particular production facilities may be based geographically. The propensity of firms to coordinate wage bargaining at company level is a response to long term organizational changes associated with the widespread devolution of business decision making structures.

Wang Chiang, Judy Shaw-Er

TI Interdependent Pricing and Markup Behavior: An Empirical Analysis of GM, Ford and Chrysler. **AU** Berndt, Ernst R.; Friedlaender, Ann F.; Wang Chiang, Judy Shaw-Er.

Wang, Ruqu

TI A Sorting Model of Labor Contracts: Implications for Layoffs and Wage-Tenure Profiles. **AU** Weiss, Andrew; Wang, Ruqu.

Warshawsky, Mark J.

PD December 1990. **TI** Financial Accounting for Pensions: Measures of Funding Status. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Finance and Economics Discussion Series: 145; C/O Steven A. Sharpe, Mail Stop 89, Federal Reserve Board, Washington, DC 20551. **PG** 22. **PR** no charge. **JE** 541, 918, 313. **KW** Pensions, Accounting, Retirement Benefits.

AB Financial accounting standards for pensions in the private sector have evolved over the years, culminating in the late 1980s in a new, more rigorous and complex, standard, Statement of Financial Accounting Standards No. 87. This paper briefly reviews the history of accounting standards for pensions and explains, in some detail, the new standard in place since 1987. The paper continues with the reporting of statistical measures of the funding status of pension plans produced under the new accounting standard for the years 1987, 1988 and 1989.

Watson, Mark W.

TI Business Cycle Properties of Selected U.S. Economic Time Series, 1959-1988. **AU** Stock, James H.; Watson, Mark W.

Weber, Axel A.

PD August 1990. **TI** EMU and Asymmetries and Adjustment Problems in the EMS: Some Empirical Evidence.

AA Universitat-Gesamthochschule Siegen. **SR** Centre for Economic Policy Research Discussion Paper: 448; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 92. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** O52, F15, F33. **KW** Economic Integration, Europe, Monetary Policy, Exchange Rates, Monetary System.

AB The paper empirically analyzes asymmetries in the EMS with special reference to their implication for the creation of a monetary union (EMU). Two types of asymmetries are analyzed: those in the form of "German dominance" are detected in the conduct of monetary policies in the EMS, in particular when the concept of "Granger causality" is applied in vector autoregressions using money-market interest rates through which most of the short-term policy impulses are transmitted; and second, asymmetries in the shocks to macroeconomic variables are discussed.

Wegge, Leon L.

PD December 1990. **TI** Local Identifiability of the Factor Analysis and Measurement Error Model Parameter. **AA** University of California at Davis. **SR** University of California at Davis Economics Department Working Paper: 370; Department of Economics, University of California at Davis, Davis, California 95616-8578. **PG** 50. **PR** no charge. **JE** C23, C13. **KW** Indirect Estimator, Factor Analysis Model, Identification, Parameter Estimation.

AB Local identifiability conditions of the factor analysis model (FAM) parameter alpha are shown to decompose naturally into the local identifiability conditions of the parameter theta of the FAM in basis (reduced, exploratory) form and the conditions that link the basis form parameter theta to the FAM parameter alpha. The condition for a basis form parameter theta to be identifiable is that the number of linearly independent pairs of non basis tests be at least equal to the number of factors m, which implies m does not exceed the Ledermann bound. We state how this result closes a gap of long standing in the factor analysis literature. The condition that links theta uniquely to alpha is that there be at least m squared restrictions, with at least m restrictions on each column of the combined matrix of factor loadings and factor covariance.

Weibull, Jorgen W.

TI Strategy Subsets Closed under Rational Behavior. **AU** Basu, Kaushik; Weibull, Jorgen W.

Weingast, Barry R.

TI Political Foundations of the Thrift Debacle. **AU** Romer, Thomas; Weingast, Barry R.

TI The Merchant Guild as a Nexus of Contracts. **AU** Greif, Avner; Milgrom, Paul; Weingast, Barry R.

Weisbrod, Steven

TI Banks in the Market for Liquidity. **AU** Garber, Peter; Weisbrod, Steven.

Weiss, Andrew

PD September 1990. **TI** A Sorting Model of Labor Contracts: Implications for Layoffs and Wage-Tenure Profiles. **AU** Weiss, Andrew; Wang, Ruqu. **AA** Boston University. **SR** National Bureau of Economic Research Working Paper: 3448; National Bureau of Economic Research, 1050

Massachusetts Avenue, Cambridge, MA 02138. **PG** 36. **PR** \$2.00. **JE** 821, 824. **KW** Labor Contracts. Sorting Model. Labor Productivity. Turnover. Monitoring.

AB This paper analyzes a sorting model of labor contracts when workers have private information about their own productivities, and firms can test (monitor) workers. We show that sorting considerations alone generate steep wage-tenure profiles, high turnover rates of newly hired workers, and mandatory retirement rules. We find that if test results are only informative to the testing firm, and hiring is costless, then all workers that fail the test are fired. When hiring is costly, we derive conditions under which the firm retains some (or all) workers that fail its test. We also derive conditions under which the firm tests some, but not all, of its workers.

Weller, Paul

TI Currency Bands, Target Zones, and Cash Limits: Thresholds for Monetary and Fiscal Policy. **AU** Miller, Marcus; Weller, Paul.

Welling, Linda

TI Industrial Blackmail of Local Governments. **AU** King, Ian; McAfee, R. Preston; Welling, Linda.

Whalley, John

TI Taxes, Outward Orientation, and Growth Performance in Korea. **AU** Trela, Irene; Whalley, John.

TI An Alternative View of Tax Incidence Analysis for Developing Countries. **AU** Shah, Anwar; Whalley, John.

Whang, Yoon-Jae

PD January 1991. **TI** Tests of Specification for Parametric and Semiparametric Models. **AU** Whang, Yoon-Jae; Andrews, Donald W. K. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 968; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 82. **PR** no charge. **JE** 211. **KW** Nuisance Parameter. Semiparametric Model. Specification Test. Stochastic Equicontinuity. Linear Regression Model.

AB This paper provides a general framework for constructing specification tests for parametric and semiparametric models. The paper develops new specification tests using the general framework. In particular, specification tests for semiparametric partially linear regression, sample selection, and censored regression models are introduced. The results apply in time series and cross-sectional contexts. The method of proof exploits results concerning the stochastic equicontinuity or weak convergence of normalized sums of stochastic processes.

Whipple, Glen D.

TI Using Laboratory Experimental Auctions in Marketing Research: A Case Study of New Packaging for Fresh Beef. **AU** Hoffman, Elizabeth; Menkhous, Dale J.; Field, Ray A.; Whipple, Glen D.

White, Michelle J.

TI Medical Malpractice: An Empirical Examination of the Litigation Process. **AU** Farber, Henry S.; White, Michelle J.

Whittington, Leslie A.

PD August 1989. **TI** Fertility and the Personal

Exemption: Implicit Pronatalist Policy in the United States. **AU** Whittington, Leslie A.; Peters, H. Elizabeth; Alm, James. **AA** Whittington: University of Maryland. Alm and Peters: University of Colorado. **SR** Economics Research Center/NORC Discussion Paper: 89-6; Economics Research Center/NORC, 1155 E. 60th St., Chicago, IL 60637. **PG** 21. **PR** \$2.00; Send requests to Librarian, Economics Research Center. **JE** 921, 323. **KW** Personal Exemption. Fertility. Pronatalist Policy. Taxes. Tax System.

AB No abstract.

Wickens, Michael

PD August 1990. **TI** National Insolvency: A Test of the U.S. Intertemporal Budget Constraint. **AU** Wickens, Michael; Uctum, Merih. **AA** Wickens: University of Florida. Uctum: Laval University. **SR** Centre for Economic Policy Research Discussion Paper: 437; Centre for Economic Policy Research, 6 Duke of York Street, London SW1Y 6LA, ENGLAND. **PG** 31. **PR** 1 pound (\$2) individuals; 1.50 pounds (\$3) companies, libraries, institutions. **JE** H61, H62, H63. **KW** Budget Constraint. Government Spending. Balance of Payments.

AB If a nation fails to satisfy its intertemporal budget constraint (IBC) then, like a government or a household, either it will become insolvent or it can consume more of its income. The main purpose of this paper is to establish necessary and sufficient conditions for a nation to satisfy its IBC, and to use these to carry out a test of whether the United States is violating its IBC. After suitable modifications the techniques used in the literature in testing the government IBC can be used; for example, the balance of payments replaces the government budget constraint. The analysis provides a number of new results and generalizations of existing results.

Wilcox, David W.

PD April 1990. **TI** Income Tax Refunds and the Timing of Consumption Expenditure. **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 106; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve Board, Washington, D.C. 20551. **PG** 33. **PR** no charge. **JE** D12, D11, E21, E32. **KW** Consumption. Income Taxes. Consumer Economics. Taxes.

AB The paper investigates the impact of income tax refunds on consumption expenditure. According to the life cycle/permanent income model of consumption, refunds should have no contemporaneous effect on monthly spending because they are known at least one month prior to receipt. Alternative models that allow for consumption out of current income--rather than permanent income--suggest that refunds might strongly influence consumption spending. The paper examines the empirical relationship between weekly income tax refunds and monthly consumer spending using a simple procedure for estimation with data of mixed frequencies. The use of the mixed-frequency technique is substantively important because it allows refunds that are disbursed early in the month.

PD May 1990. **TI** What do We know about Consumption? **AA** Board of Governors of the Federal Reserve System. **SR** Board of Governors of the Federal Reserve System Economic Activity Section Working Paper Series: 107; Board of Governors of the Federal Reserve System, Economic Activity Section, Stop #80, Federal Reserve

Board, Washington, D.C. 20551. PG 42. PR no charge. JE D12, D91, C82, E21. KW Consumption. National Income Accounting. Consumer Economics. Macro Data.

AB This paper investigates the source data and estimation methods used to construct the retail sales and aggregate consumption data. The purpose of the paper is to assess the robustness of current empirical practice to likely imperfections in the data. In this regard, the paper documents two important facts about the aggregate data. The first is that the data contain sampling error; the second is that the product composition of consumer spending is not known--but, rather, is estimated--at the monthly frequency. Both facts imply that it would be incorrect--even under the strictest assumptions--to reject the life cycle hypothesis based on a finding that estimated spending did not follow a martingale. The paper concludes that existing data may not be able, without much greater attention to their limitations, to support the research approach of the last ten years.

TI Production and Inventory Control at the General Motors Corporation During the 1920s and 1930s. AU Kashyap, Anil K.; Wilcox, David W.

Wildasin, David E.

PD September 1989. TI Some Rudimentary Duopoly Theory. AA Indiana University. SR Queen's John Deutsch Institute Discussion Paper: 9; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 40. PR \$3.00 Canada and U.S.; \$3.50 Foreign. JE H73, F15, F14, F41. KW Externalities. Tariffs.

AB Let there be a pair of jurisdictions whose choices of tax, expenditure, regulatory, or other policies affect each other. Their strategic interactions can be modeled in various ways. Candidate models of duopolitical equilibrium include Nash equilibria in taxes, expenditures, tariffs, and quotas. Examples of several of these equilibria are presented and compared. Choosing among them is a game-theoretic problem involving the determination of strategic variables subject to side constraints. The problem can be formulated as a two-stage game, in which governments commit to using certain strategic variables in the first stage, and then determine the values of these variables themselves in the second stage.

Williams, Arlington W.

TI Group Size and the Voluntary Provision of Public Goods: Experimental Evidence Utilizing Large Groups. AU Isaac, R. Mark; Walker, James M.; Williams, Arlington W.

Williams, Steven R.

TI Convergence to Price-Taking Behavior in a Simple Market. AU Rustichini, Aldo; Satterthwaite, Mark A.; Williams, Steven R.

Wilson, Charles A.

TI Auctions for Oil and Gas Leases with an Informed Bidder and a Random Reservation Price. AU Hendricks, Kenneth; Porter, Robert H.; Wilson, Charles A.

TI Auctions for Oil and Gas Leases with an Informed Bidder and a Random Reservation Price. AU Hendricks, Kenneth; Porter, Robert H.; Wilson, Charles A.

Wilson, John Douglas

PD October 1990. TI Tax Competition with Interregional Differences in Factor Endowments. AA Indiana University. SR Queen's John Deutsch Institute Discussion Paper: 4; c/o Department of Economics, Queen's University, Kingston, Ontario, CANADA K7L 3N6. PG 26. PR \$3.00 Canada and U.S.; \$3.50 Foreign. JE H71, H72, R13, R23. KW Property Taxes. Public Goods. Regional Economics.

AB This paper studies "tax competition" between two regions that tax interregionally mobile capital to finance local public goods. In the Nash equilibrium, the residents of the relatively small region, measured by population size, are better off than those of the large region. Moreover, the utility level in a sufficiently small region lies above the level associated with the Pareto efficient tax rates. These results are compared with related findings in both the international trade literature and the local public economics literature.

Winer, Stanley L.

TI Endogenous Policy in a Computational General Equilibrium Framework. AU Rutherford, Thomas; Winer, Stanley L.

PD October 1990. TI Debt and Tariffs: An Empirical Investigation of the Evolution of Revenue Systems. AU Winer, Stanley L.; Hettich, Walter. AA Winer: University of Western Ontario and Carleton University. Hettich: California State University. SR University of Western Ontario Papers in Political Economy: 7; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 38. PR no charge. JE H11, N41. KW Government Revenue. Fiscal Policy. Canada. Economic History.

AB This paper presents a theoretical framework where government chooses fiscal structure so as to maximize political support and where the evolution of fiscal systems is determined by changing economic, political and administrative factors. Estimating equations are derived and the model is used to explain the development of revenue structure in Canada from 1871 to 1913, a period when major revenue sources consisted of the tariff, debt and excises. The empirical analysis distinguishes between government plans and ex post observations of public revenues and places particular emphasis on the derivation of hypotheses linking economic, political and administrative variables to revenue structure.

Winters, Alan L.

TI Do Exporters Gain From VERs? AU de Melo, Jaime; Winters, Alan L.

Wintrobe, Ronald

PD August 1990. TI The Tinpot and the Totalitarian: A Simple Economic Theory of Dictatorship. AA University of Western Ontario. SR University of Western Ontario Papers in Political Economy: 4; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. PG 45. PR no charge. JE D72, P40. KW Dictators. Political Systems. Political Science.

AB What should the attitude of citizens in democratic countries be towards dictatorships? What policies should their governments follow? There are really two kinds of dictatorships. The first type, commonly referred to as

"totalitarian" dictatorship, is characterized by massive government intervention into the economic and social lives of the citizenry, motivated by Utopian goals of one kind or another, and exemplified by communist dictatorships, Nazi Germany, and possibly contemporary Iran. The second type is what Kirkpatrick calls "traditional autocracies" and which I call "tinpot" dictatorships, in which the ruling government does not disturb the traditional way of life of the people, and represses them only to the modest extent necessary to stay in office and collect the fruits of monopolizing political power. Examples of this latter type include the ex-rulers Samosa of Nicaragua and the Shah of Iran, presumably also Ferdinand Marcos, and General Noriega. Now, all policy conclusions depend on a model, and so it is reasonable to ask what the underlying model of dictatorship is in this case.

Wise, David A.

TI Efficient Windows and Labor Force Reduction. **AU** Lumsdaine, Robin L.; Stock, James H.; Wise, David A.

TI Aging and Labor Force Participation: A Review of Trends and Explanations. **AU** Lumsdaine, Robin L.; Wise, David A.

Wiseman, A. Clark

PD January 1990. **TI** Recent International Developments Impacting United States Forest Products Trade. **AA** Gonzaga University. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-06; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 55. **PR** \$5.00 prepaid (U.S. funds only). **JE** 631, 421, 422. **KW** Agriculture. Commercial Policy. Exports. Timber Industry.

AB Forest products trade between the United States, Europe, and Canada will be affected by institutional changes in trade relationships under the 1992 European market completion measures and the Canadian-United States Free Trade Agreement. In both cases, the major potential for expanded U.S. exports lies in robust economic growth abroad resulting from the increased efficiency that accompanies trade liberalization. European trade will also depend on the extent to which North American forest products are given access under the various product and construction standards that are to be harmonized under EC 1992. Differences in product standards and other trade barriers will not be automatically eliminated by the Canada-U.S. FTA, although the dispute resolution process is improved.

PD August 1990. **TI** U.S. Wastepaper Recycling Policies: Issues and Effects. **AA** Gonzaga University. **SR** Resources for the Future Energy and Natural Resources Division Discussion Paper: ENR90-14; Energy and Natural Resources Division, Resources for the Future, 1616 P Street, NW, Washington, DC 20036. **PG** 66. **PR** \$5.00 prepaid (U.S. funds only). **JE** 722, 631. **KW** Waste Disposal. Landfills. Recycling. Conservation.

AB Current and future efforts to reduce the amounts of wastepaper entering landfills are almost certain to have impacts on many features of pulp, paper, and related markets as well as on production technologies. Included in the impacts will be a reduction in the utilization rates of virgin fiber sources -- both roundwood, pulpwood and the pulpable residuals of other wood products production processes. This paper presents factual and

conceptual issues related to the municipal solid waste disposal problem, with emphasis on landfilling as historically the primary alternative for solid waste management. The discussion then brings together the data and information necessary for understanding the basic aspects of pulp and paper production, disposal, and recycling.

Wittman, Donald

PD October 1990. **TI** Why Government Bureaucracies are Efficient and Not Too Large: The Endogeneity of Institutional Design. **AA** University of California, Santa Cruz. **SR** University of Western Ontario Papers in Political Economy: 8; Department of Economics, Social Science Centre, University of Western Ontario, London, Ontario, CANADA N6A 5C2. **PG** 22. **PR** no charge. **JE** D73, H61. **KW** Bureaucracy. Government Spending.

AB By applying the standard tools of microeconomic analysis, I argue that bureaucratic markets work as well as economic markets and, in particular, that outcomes are likely to be wealth maximizing and government budgets are not too large. I show that previous work has greatly exaggerated the existence of principal-agent and related problems in bureaucratic markets, has drawn incorrect conclusions, and has used inappropriate methodology in testing for the existence of these principal-agent problems.

Wolak, Frank A.

TI The Effect of Domestic Antidumping Law in the Presence of Foreign Monopoly. **AU** Staiger, Robert W.; Wolak, Frank A.

TI The Econometric Implications of Incentive-Compatible Regulation. **AU** Feinsein, Jonathan S.; Wolak, Frank A.

TI Collusive Pricing with Capacity Constraints in the Presence of Demand Uncertainty. **AU** Staiger, Robert W.; Wolak, Frank A.

Won, Yunhi

TI Revenue and Welfare Implications of a Capital Gains Tax Cut when Gains Realizations and Dividend Payouts are Endogenous. **AU** Hendershott, Patric H.; Toder, Eric; Won, Yunhi.

Woodford, Michael

PD May 1990. **TI** Equilibrium Models of Endogenous Fluctuations: An Introduction. **AA** University of Chicago. **SR** National Bureau of Economic Research Working Paper: 3360; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. **PG** 50. **PR** \$2.00. **JE** E32, D40. **KW** Economic Fluctuations. Sunspot Equilibrium. Deterministic Cycles.

AB These lectures comment upon recent theoretical models of endogenous fluctuations in economic dynamics, including both the literature on nonlinear deterministic cycles and the literature on "sunspot equilibria". Two important themes include (1) reasons to be interested in models of purely endogenous fluctuations, even though actual economies are admittedly subject to exogenous stochastic shocks; and (2) the importance of market imperfections in making possible equilibria characterized by endogenous fluctuations of either of the two types.

PD May 1990. **TI** Self-Fulfilling Expectations and

Fluctuations in Aggregate Demand. AA University of Chicago. SR National Bureau of Economic Research Working Paper: 3361; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 39. PR \$2.00. JE E32, E21, D45, D84. KW Rationing. Product Market. Expectations. Aggregate Demand. Economic Fluctuations.

AB The paper presents an intertemporal general equilibrium model with rationing in the product market, in which stationary sunspot equilibria are shown to exist, indicating the possibility of fluctuations in economic activity simply due to self-fulfilling variations in economic agents' expectations. Specifically, revised expectations about future aggregate demand change current investment demand, which (amplified by a "multiplier" process) then affects current aggregate demand. Parameter values required for endogenous fluctuations are discussed, as well as quantitative properties of the fluctuations predicted. Countercyclical stabilization policies are shown to rule out such equilibria.

PD September 1990. TI Does Competition Between Currencies Lead to Price Level and Exchange Rate Stability? AA University of Chicago. SR National Bureau of Economic Research Working Paper: 3441; National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138. PG 39. PR \$2.00. JE 431, 411, 023. KW Exchange Rates. Currency. Prices.

AB This paper challenges the view that a system of "competing currencies," if sufficiently substitutable for one another, would lead to stable exchange rates and hence to stable price levels in terms of the various currencies. A theoretical framework for the analysis of the consequences of increasing substitutability of currencies is proposed, in a multiple-currency "cash-in-advance" model. High (though imperfect) substitutability is shown to make more likely indeterminacy of equilibrium exchange rates and the failure of learning dynamics to converge to rational expectations, and to make the management of a fixed exchange rate system considerably more difficult.

Wright, Robert E.

TI Entry to Lone Parenthood: Analysis of Marital Dissolution. AU Ermisch, John F.; Wright, Robert E.

TI Women's Wages in Great Britain. AU Ermisch, John F.; Joshi, Heather E.; Wright, Robert E.

PD January 1990. TI Male-Female Wage Differentials in Great Britain. AU Wright, Robert E.; Ermisch, John F. AA Birkbeck College. SR Birkbeck College Discussion Papers in Economics: 10/90; Birkbeck College, Department of Economics, 7/15 Gresse St., London W1P 1PA, ENGLAND. PG 36. PR not available. JE 824, 851, 917. KW Human Capital. Discrimination. Wage Differentials. Wages.

AB For the first time, nationally representative data on women's employment histories are used to study the gap between women's and men's wages in Great Britain. The wage gap is decomposed into a component due to gender difference in human capital characteristics (such as education, work experience, and time spent out of employment by women), and a component due to gender-based discrimination. Using data collected in the 1980 Women and Employment Survey, it is found that women's wages would be about one-fifth higher in the absence of discrimination. This is somewhat higher than

previous estimates.

TI Lone Parenthood and Employment in Great Britain: Male-Female Differences. AU Ermisch, John F.; Wright, Robert E.

Wu, Ping X.

TI Locally Optimal One-Sided Tests for Multiparameter Hypotheses. AU King, Maxwell L.; Wu, Ping X.

Wyplosz, Charles

TI Gross Labor Market Flows in Europe: Some Stylized Facts. AU Burda, Michael C.; Wyplosz, Charles.

TI Price and Trade Effects of Exchange Rate Fluctuations and the Design of Policy Coordination. AU Cohen, Daniel; Wyplosz, Charles.

Yellen, Janet L.

TI Waiting for Work. AU Akerlof, George A.; Rose, Andrew K.; Yellen, Janet L.

Zame, William R.

TI The Nonatomic Assignment Model. AU Gretsky, Neil E.; Ostroy, Joseph M.; Zame, William R.

PD November 1990. TI Efficiency and the Role of Default when Security Markets are Incomplete. AA Johns Hopkins University. SR Johns Hopkins Department of Political Economy Working Paper: 259; Department of Economics, Johns Hopkins University, Baltimore, Maryland 21218. PG 43. PR no charge. JE D52, G10. KW Default. Incomplete Markets. General Equilibrium Models.

AB Default appears to play an important role in the economy - but not in general equilibrium models. Viewed from the traditional perspective of general equilibrium theory, it would seem that default would lead to inefficiency. This paper argues that, to the contrary, in a world of uncertainty and incomplete security markets, default may promote - indeed even be necessary for - efficiency.

Zeckhauser, Richard

TI Hot Hands in Mutual Funds; The Persistence of Performance, 1974-87. AU Hendricks, Darryll; Patel, Jayendu; Zeckhauser, Richard.

Zeldes, Stephen P.

TI The Consumption of Stockholders and Non-Stockholders. AU Mankiw, N. Gregory; Zeldes, Stephen P.

Zhang, Junsen

PD June 1990. TI Socioeconomic Determinants of Fertility in China: A Microeconomic Analysis. AA Australian National University. SR Australian National University Working Paper in Economics and Econometrics: 212; Australian National University, GPO Box 4, Canberra, ACT 2601, AUSTRALIA. PG 34. PR not available. JE 841, 921. KW Consumer Economics. Demographics. Education. China. Fertility.

AB This paper reports the first set of estimates of the socioeconomic determinants of fertility in China using 1985 micro-data available from China's In-Depth Fertility Survey. Based on existing microeconomic theories of fertility, and

econometric model was specified and estimated. The results indicate that even after age, marriage duration and child mortality are taken into account, education level of the woman, occupational status of the husband, the place of former and current residence, sex preference for boys, durable goods ownership, and family structure affect fertility. For the middle cohorts (aged 25-34 in 1985), the relationship between fertility and education takes the form of a J-shaped curve.

PD June 1990. **TI** Estimating Heterogeneity of Fecundity among Chinese Couples. **AU** Zhang, Junsen; Sturm, Roland. **AA** Australian National University. **SR** Australian National University Working Paper in Economics and Econometrics: 208; Australian National University, GPO BOX 4, Canberra, ACT 2601, AUSTRALIA. **PG** 19. **PR** not available. **JE** J13. **KW** Fertility. China. Children.

AB This paper presents estimates of the heterogeneity of fecundity among Chinese couples using parametric and nonparametric discrete duration models. The variable of interest is the time span between a couple's decision to have a child and the achievement of pregnancy. It is found that heterogeneity is lower in more rural and more traditional areas. Positive duration dependence is found to exist in every cohort except the youngest cohort in a modernized area, Shanghai. The interpretation is that social norms regarding premarital relations between spouses have been changing with the development of Chinese society.

Zhao, Jingang

PD September 1990. **TI** The Hybrid Solutions of N-Person Game. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 956; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 21. **PR** no charge. **JE** 026, 213. **KW** Normal Form Game. Nash Equilibrium. Core. Hybrid Solution. Game Theory. Coalitions.

AB We introduce a solution concept intermediate between the cooperative and noncooperative solutions of an n-person game in normal form. Consider a partition p of the players, with each s an element of p , a coalition. A joint strategy $x = \{x(s) \text{ such that } s \text{ an element of } p\}$ is a hybrid solution for the partition p if, for each s an element of p , $x(s)$ is a core solution of the corresponding parametric subgame, where this game is played by the players in a s and is parameterized by $x(-s)$, the strategies played by all outside players. This assumes that players behave cooperatively within each coalition and competitively across coalitions. Sufficient conditions are given for a general n-person game to have hybrid solutions for any partition.

Zhou, Lin

PD September 1990. **TI** Inefficiency of Strategy-Proof Allocation Mechanisms in Pure Exchange Economies. **AA** Yale University. **SR** Yale Cowles Foundation Discussion Paper: 954; Cowles Foundation for Research in Economics, 30 Hillhouse Ave., Box 2125 Yale Station, New Haven, CT 06520. **PG** 11. **PR** no charge. **JE** 022, 025, 026. **KW** Allocation Mechanism. Exchange Economy. Dictatorship.

AB In this paper I prove that in the standard model of $2 \times N$ pure exchange economies there is no allocation mechanism that is efficient, non-inversely-dictatorial, and strategy-proof. This strengthens two previous results on the subject by Hurwicz and Dasgupta, Hammond, and Maskin.

Zilberman, David

TI A Model of Nutrient Demand and the Allocation of Time. **AU** Gawn, Glynis; Rausser, Gordon C.; Zilberman, David.

Zimmer, Steven A.

TI Explaining International Differences in the Cost of Capital: The United States and United Kingdom versus Japan and Germany. **AU** McCauley, Robert N.; Zimmer, Steven A.

Zimmermann, Christian

PD August 1990. **TI** Rent Determination in Switzerland: A Biased Market? **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9012; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 29. **PR** no charge. **JE** 932, 227, 044, 931. **KW** Housing Policy. Switzerland. Housing Prices. Rent Control. Housing Economics. Rents.

AB Economic theory proposes several explanations for the determination of rents. These hypotheses are tested for the different regimes of controlled or free rents in Switzerland from 1904 to 1990. We find evidence indicating that the strong influence of rent control inhibits market forces. Under the rent supervision regime, the rules permitting adjustments of rents have been followed closely by the landlords. So from 1972 to the present adjustments after increases (but not decreases) of the mortgage rate have been legally allowed. This rule has generated a cartelistic behavior among landlords. So the regime of rent supervision is the only one where interest rates have some influence on rents. The rare periods of rent freedom show a phenomena of "catching up", but no rocketing of rents. Paper in French.

PD August 1990. **TI** History of Swiss Housing Policies and their Effects. **AA** University of Lausanne. **SR** Universite de Lausanne Cahiers de Recherches Economiques: 9011; Departement d'Econometrie et d'Economie Politique, Universite de Lausanne, BFSH-Dorigny, CH-1015 Lausanne, SWITZERLAND. **PG** 57. **PR** no charge. **JE** 932, 044, 931. **KW** Housing Policy. Switzerland. Rent Control. Housing Economics. Real Estate.

AB The Swiss housing market has been perturbed by several regimes of rent control since 1917. Passed during temporary crises (1917 World War I, 1936 devaluation, 1939 world War II, 1972 overheating), these laws have been very difficult to repeal. They have pronounced long-term effects on market equilibrium (less than 1% of vacancies almost continuously since 1943) and on investment. Programs encouraging investment have not been nearly strong enough to meet demand. So policy aimed at protecting renters made them face a very strong surplus of demand. An appendix presents the computation of statistics on rents, construction starts, construction costs and vacancies since 1896. Paper in French.

Zusman, Pinhas

PD July 1990. **TI** Endogenous Policy Theory: The Political Structure and Policy Formation. **AU** Zusman, Pinhas; Rausser, Gordon C. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 537; 207 Giannini Hall, University

of California at Berkeley, Berkeley, CA 94720. **PG** 44. **PR** \$8.80. **JE** P16, D72, D74. **KW** Government Intervention. Economic Policy. Political Economy. Conflict. Interest Groups.

AB Models of economic systems involving government intervention by definition include some policy variables, or policy instruments, through which the policy is implemented. In general, economists have tended to view these variables as exogenously given. While convenient in dealing with some analytical problems, this attitude is not always adequate, as it abstracts from the realities of political-economic life. Where government intervention has continued for a sufficiently long duration, it often exhibits certain regularities which may be captured by incorporating governmental behavior relations in the model. However, for explanation and prediction purposes, it would be desirable to establish hypotheses concerning the formation of the observed political regularities. Several approaches are conceivable in performing this task. These will be discussed elsewhere. In the following, we present our own approach which adjoins a political structure to the economic structure.

PD August 1990. **TI** Political-Econometrics: The Quantitative Investigation of a Political-Economy. **AA** University of California, Berkeley. **SR** University of California at Berkeley Department of Agricultural and Resource Economics (CUDARE) Working Paper: 548; 207 Giannini Hall, University of California at Berkeley, Berkeley, CA 94720. **PG** 29. **PR** \$5.80. **JE** P16, D72, O21, C52. **KW** Economic Policy. Political Economy. Economic Environment.

AB In an earlier work, we expounded a descriptive integrated theory of a political-economy. As is generally the case, the motivations for developing the theory were: (a) to provide a general explanation of the working of a political-economy and (b) to provide a mechanism for predicting the values assumed by the endogenous economic variables and the policy instruments for given environments. The two objectives are, in fact, related in several ways. Evidently, explication and prediction alike must derive from a valid theory. As an introduction to the rest of this paper, we now consider the theory validation problem and the role of theory in prediction as applied to our political-economic theory.